



CHEETA

JOURNAL OF

The Wild Life Preservation Society of India

Vol. II

MAY, 1969

No. 2

MUSK DEER (*Moschus moschiferus*)

Photo: L.J. Johnson, I.C.S.



Announcement

Jawaharlal Nehru Fellowship

The Wild Life Preservation Society of India has been recognised and approved as an institution of National importance by Jawaharlal Nehru Memorial Fund to route and recommend applications to the Trustees for grant of Jawaharlal Nehru Fellowships.

Jawaharlal Nehru Fellowships are not only aimed at excellence, but the sphere of activity which they cover, far from being restricted to the academic world, include the whole spectrum of human endeavour, taking into account Nehru's multifaceted personality and his many splendoured achievements.

Fellowships are open to scholars in every discipline and also to writers, journalists, artists, and civil servants. They are open to Indian citizens with complete freedom to work at a place of their choice anywhere in India.

There is no time limit for submission of applications. The number of fellows at any given time shall not exceed 25. The duration will vary from one to two years according to the requirements of each case.

The fellows will be paid a stipend of Rs. ₹000/- per month and will be provided secretarial assistance and also travelling expenses to pursue their work. Their actual expenses on the two items will be met by the Fund subject to a maximum of Rs. 10,000/- per annum for each fellow.

There is no printed form of application but the following information may be required:—

1. Bio-data.
2. Experience in the field of specialisation.
3. Original work.
4. Project proposed to be undertaken.
5. Remarks of the forwarding institution.

The Wild Life Preservation Society of India will be glad to consider for recommendation to the Fund applications from members and non-members, relating to any aspect of wild life.

Correspondence should be addressed to The Honorary Secretary, Wild Life Preservation Society of India, 7, Astley Hall, Dehra Dun.

*

*

*

*

Our Publications

Our First Book in Hindi 'Singha Parivar' by the late Shri M.D. Chaturvedi, I.F.S. (Retd.) has been published by The National Book Trust, India and is priced at Rs. 3/- only. It may be had from the Honorary Secretary, Wild Life Preservation Society of India, 7, Astley Hall, Dehra Dun.

*

*

*

*

Our Second book "Panther on the Prowl" in English by the late Shri M.D. Chaturvedi, I.F.S. (Retd.) has been published by The National Book Trust, India. Price Rs. 3.25. Please book your orders with the Honorary Secretary, Wild Life Preservation Society of India, 7, Astley Hall, Dehra Dun.

CHEETAL

Journal of The Wild Life Preservation Society of India

VOL. XI

MAY, 1969

No. 2

Ourselves

Though we try to bring the best available material for readers of Cheetal, in every issue, some issues are bound to be better than others. Such a one, we are sure, will be the next issue of Cheetal, which will be longer than normal, to mark the General Assembly of the International Union for the Conservation of Nature and Natural Resources, due to be held in New Delhi in November this year, at the invitation of the Government of India.

The potential good that such an august and internationally acclaimed body can do is immense. That they will meet in India for the first time is significant. It was just such a meeting in Arusha that paved the way for the massive aid received by the wildlife of the African continent since then.

Thus, while hoping for similar help from the I.U.C.N. for India's wildlife effort, we, of the Society hope to do our best by bringing out a special issue of Cheetal on the occasion, including papers on original research work as well as the opinions of experts on problems of wildlife administration and management.

* * * *

For some time past, the Society has had an Honorary Representative in Delhi, who made us known amongst the wildlife enthusiasts and sportsmen in the first city, and who enrolled a large number of members. We have now been able to form a Delhi Branch of the Wild Life Preservation Society and at a meeting held in Zoological Park on April 7, 1969. An executive committee consisting of seven members was elected.

We hope with confidence that this Branch will one day grow bigger, and substantially add to our momentum in the country. The address of the Delhi Branch is:

Y. N. Gupta, Honorary Secretary,
139, Sundar Nagar, New Delhi.

Editorial Notes

Shooting Rules and Permits: Need for Publicity:

We suspect we have said this before, but a letter from a young shikari from Kashmir highlights the need for states to re-frame and publish the shooting rules and conditions applicable to their jurisdictions. Not all states have done this yet, and even in states like U.P., where rules are published (Cheetal, Vol. XI, No. I), lacunae exist, as in the matter of hill districts, where contradictory replies are received from officers. Only when legitimate sport is legitimised and information freely available, can we effectively preserve and manage our wildlife resources.

Himalayan Wildlife:

The cover picture of a musk deer crossing a spring snowfield through a sparse stand of silver birches (*Betula utilis*) is by an eminent administrator, Mr. L. J. Johnson, of the Oil and Natural Gas Commission. This able civil servant, a well-known artist in his leisure, is another illustration of what amateurs can do in the field of wildlife, for he manages to find time in spite of his hectic work-schedule, to take memorable pictures of the difficult-to-photograph Himalayan fauna, in the best tradition of Champion and Corbett.

Himalayan Zoo for Himachal Pradesh:

We learn from the Himachal Pradesh Government that Dr. Hediger, of the Zurich Zoological Garden, has been advising them on the formation of an open-air zoological garden for Himalayan fauna near Simla. Not only is Himachal gifted with a rich representation of high-elevation animals, but in K.L. Mehta they have a Wild Life Warden who knows his job. We congratulate them on their initiative, and hope to bring to our readers details of this zoo in a later issue.

Mr. Werner Fend was in India again on his filming mission. He makes documentaries, for which there is great demand in Europe, on Indian wildlife. Corbett National Park is next on his list for a film, but right now he was engaged in trying to take pictures of the, presumably, black and red (brown) bear of Kulu-Manali. We suspect he will find them less than co-operative in comparison with his plains quarry, the ungulates and predators of the National Parks and Sanctuaries of India.

Then and Now:

We have been reading, as we often do, old shikar literature, and find the pages of F.G. Aflalo's Sportsman's Book for India conducive to a bitter nostalgia. For days when one could trek a day from Chamba in Himachal, or from Kishtwar, to shoot a choice ibex or even a markhor; days when red bear and black bear were encountered in dozens, and snow leopards

roamed frequently through apple orchards in winter. When the Kashmir Stag boomed down to the vale of Srinagar and were plentiful even in areas of Himachal Pradesh, east and north of Chamba. Alas ! That is all in the definitive past now, we fear.

The Pangi and the Kugti nallas, the Padar and the Rupshu, Machail and Kaji Nag, Bhadarwa and Tissa, all are either shot-out, or in areas no longer accessible to Indian civilians. And even if one could get there, little of the old plenty remains.

This highlights the need for Himalayan wildlife research and the formation of effective sanctuaries. Aflalo shot like a good sportsman, but even he can write proudly of so many red (brown) bear wounded, so many ibex and bharal, musk deer and pheasant, markhor and goral, and thar, bagged, as though it were a great achievement. In those days, perhaps, it was an achievement. Now, it can only be a qualified privilege at best, a crime at worst.

Here is an extract from his diaries: "A really good day's work. Spent the morning in a world of clouds, and took up position on a rocky outcrop at three. Clouds cleared and two reasonably good bears appeared, emerging from a ravine. A short stalk, and I drop one at 100 yards, with a shot between the eyes;.....up jumps the second, bigger bear on his hind legs to see what is happening, and hurried a shot through the stomach drops him, but he is up again.....

Again: "Awoke in the morning with a huge bear near my tent; snow all around. Looking out, I see him digging roots..... a magnificent fellow...he collapses, shot through the head... 6 feet 10 inches from nose to tail..... I shot another good red bear and two ibex in the Dinaitru nalla...leaving behind several bear, thar and a good many ibex.

Or: "Bara Singh—The red deer of the Himalayas is working further east, and can be found on the Chamba-Kishtwar border over the Padri pass from October to March..."

The good old days !

Books on Wildlife:

Facilities for research work in all contemporary fields of scholarship are expanding in India. Ecological and Zoological research in India is often hampered by the fact that only the Library and the Museum of the Zoological Survey of India and the B.N.H.S., are anywhere near adequate to the needs. Our own Library is expanding but inadequate. As a step towards improving library research work we consider a bibliography of Wildlife literature pertaining to India essential and we hope to publish a pamphlet. The Society is interested in acquiring available books through purchase and donations to complete our own Library. Even to our readers more interested in sporting literature, this bibliography may fulfil a need. With the language disagreements and diversity in our country original wildlife literature is available mainly in English and English language bookshops are few and their imported

stocks limited. Even topical and contemporary classics which we review in Cheetal are not always readily available. Bookshops specialising in wildlife do not exist, which is sad, for there is an increasing market for such books. We look to some enterprising bookseller to specialise in this field and invite publishers to sponsor more books on Indian Wildlife by Indian and foreign authors. Even the reprinting of popular classics could prove profitable and would certainly be useful. Such are the rare books of Dunbar Brander, Pocock and Stuart Baker.

E.P. Gee:

Such are the ways of men and animals; we must all die, even those who spend their lives trying to save the lives of animals. Such a man was Gee, and all those who knew him must have felt his passing more intensely. Mr. P.D. Stracey, (author of *Elephant Gold*, *Tigers*, etc.) has written feelingly of his acquaintance with Gee in the *Assam Tribune*, a paper to which he contributed many interesting articles. He writes: "..... I met him in his garden at Oating... the Kaziranga Sanctuary had from the earliest received my attention, and when I learnt that Gee was in the habit of visiting it almost every week-end, I began to collaborate with him in rehabilitating this last stronghold of the Indian rhinoceros. While I worked on improving the administrative and executive set-up, Gee concentrated on photographing the rhinoceros... He had just then gone in for cine-photography and the use of colour-film and displayed the same meticulousness in this branch as he displayed in all his activities. Whenever I went on tour, I would drop in at his garden... There was always plenty to talk about, and I think Gee welcomed my visits as much as I enjoyed them. From crop-protection devices, such as the bamboo bazooka gun firing rocket crackers, to electric fencing, we discussed... I got the Government of Assam to waive the restrictions regarding visitors in his case, and he was free to go there at any time.

"It was at the meeting of the Indian Board of Wild Life in 1953 that I first appreciated his cautious and tactful approach to things. I was, and still am, a convinced exponent of the completely 'sacrosanct' sanctuary (as Assam's sanctuaries are) but Chaturvedi who was then the Inspector General of Forests and who had formed the Rajaji Sanctuary from an ordinary reserved forest and had seen the Hailey, now Corbett National Park formed from similar forest, was in favour of a less rigid arrangement. We clashed on this point when I insisted that a sanctuary was not a sanctuary in the real sense of the word if forest operations were carried out in the same area. Gee sided with Chaturvedi, and at the time I thought that he was letting me down. I still hold the same views as I did then, although I can understand the necessity for 'sailing with the wind' as much as possible in these matters.

Meanwhile, Gee had commenced to visit other parts of India to see the sanctuaries where his photographs were taken. With his status as a senior member of the Indian Board of

Wild Life and his knowledge of wild life obtained as the result of his many visits to the sanctuaries of Assam, he was invited to visit the sanctuaries in other parts of India to advise the Forest Departments on their management. This gave him the wonderful opportunity, which he readily seized, of taking photographs which formed the main attraction of his book on the wild life of India. With his foreign contacts—for he retained his British citizenship and used to visit the U.K. regularly—he began to be drawn into the international wild life movement. He corresponded extensively with wild life authorities in the U.K., became a valuable worker for, and representative of, the International Union for the conservation of Nature, visited America (which, however, did not appear to suit him, for he never wished to lecture or show his films there) and Africa, where he took many pictures and made a film of Serengeti.

In India he made films on Kaziranga and on the pelican hatchery of Andhra. All the while I was in contact with him and we met whenever it was possible to do so. After my retirement in Shillong in 1961 I stayed in his house, while he was away, and thoroughly enjoyed browsing through his library and watching his garden grow into the beautiful thing that it eventually became."

Mr. Stracey adds, "no meeting on wild life was complete without the presence of E.P. Gee.

Gee had his minor eccentricities but no one could really take exception to them if the genuineness of the man was acknowledged. His attitude towards such things as correspondence was typically English: he replied promptly to letters and naturally felt annoyed when the same compliment was not paid to him. If his opinions were bruited about by those to whom he gave them in confidence it was his misfortune.

E.P. Gee will be missed by a large and wide circle of workers for the cause of wild life, officers of the Forest Departments of various States of India to whom he had given advice, the public which had for several years enjoyed his articles and photographs, and also a group of friends whose intimacy matched their keenness on the same subject." Having ourselves known 'E.P.' over the last fifteen years, we wholeheartedly corroborate these sentiments, and join the writer in regretting E.P.'s passing. The wild life conservation scene in India is left with a gap.

The F.P.S. Tour:

From the 1st. of March to the 4th of March, the Society played host to a party of seven members of the Fauna Preservation Society of Great Britain. Their visit to Dehra Dun had been planned in advance, and elaborate arrangements had been made to show the visitors the wildlife of Motichur and Rajaji Sanctuaries. The visitors failed to glimpse

the elusive tiger. However, three members (ladies) of this Society were lucky to see a panther approaching a kill from a machan near Mohand.

It is a matter of some satisfaction that we were able, thanks to the co-operation of the Wild Life Warden and the forest staff, to organise promising beats, and to show visitors the lesser denizens of the forest even in such currently unpromising country as these disturbed sanctuaries. In this we are particularly grateful to our President, The Maharaja of Nabha, and to the Chief Wild Life Warden and the Chief Conservator of Forests of U.P. With the joining up of the boundaries of the Rajaji and Motichur sanctuaries through the erstwhile Ranipur and Dholkhand Shooting Blocks, conditions are ideal for the improvement of this combined Sanctuary, if only cattle and forest-exploitation can be controlled in two or three 'islands' of a few miles in diameter. It is earnestly to be hoped that such control will be implemented whenever possible.

M.D. Chaturvedi

To add to what we wrote on the sad passing away of the late M.D. Chaturvedi in our last issue, we have a notice from Colonel K.G. Kapoor, of the Military Hospital, Jullundhar Cantt., where he breathed his last:

Mr. M.D. CHATURVEDI retired Inspector General of Forests India died on 6th October after a brief illness. He was 72. His death is mourned by his wife, daughter, son-in-law, grand children and a host of friends and admirers.

Mr. CHATURVEDI, after a brilliant academic career at OXFORD, was one of the first Indians selected for the Indian Forest Service in 1922. He had many firsts to his credit. He was the first Indian to hold the posts of Chief Conservator of Forests, UP and subsequently Inspector General of Forests India. He had the distinction of being elected Secretary General of 4th World Forestry Conference. After a distinguished career in the IFS, he was appointed Timber Advisor to RAILWAY BOARD in 1952. He retired from service in 1953, when the United Nations appointed him UN advisor in forestry to SYRIA and in 1952 became the Chief of the FAO in CONGO, a post he held till 1965. An authority on Indian Forests and Wild Life, he was author of several books and regularly contributed articles to newspapers and magazines in India and abroad on Wild Life and Shikar. An active member of the Wild Life Preservation Society of which he was a founder member. He was closely associated with the establishment of Delhi Zoo.

A magnificent personality, with a genial nature. A fine orator, he kept his audiences, young and old, spell-bound with his ready wit and humour. He held a fascinating charm for the younger generation and was known for his narration of anecdotes, shikar-stories and jungle lore.

We cannot help wondering when we will again see men like the late Mr. Chaturvedi, architect of the Indian Board of Wild Life, and mentor of men like the late E.P. Gee, and many contemporary conservationists and foresters.

Forests Around Industrial Projects:

We give below extracts from two reports, which speak for themselves. It is high time landscape planning and afforestation were included in all planning in India, as has been attempted by the TELCO for their Bombay plant:

"Thirty two thousand saplings have been planted on the site of the TELCO factory near Bombay, in rocky ground. A dam was constructed to ensure steady water-supply, and the whole area will conserve moisture and collect soil and plant and animal life, instead of destroying it."

The other makes sad reading:

WANTON DESTRUCTION OF FORESTS AROUND DURGAPUR

DURGAPUR, May 5.—The Durgapur authorities have taken very few steps to either preserve the forest areas in and around the townships or develop selected spots for growing trees. There has been large-scale denudation of jungles by organized gangs and till now about 75% of the trees in the 'preserved' areas have been illegally felled.

The planners of this industrial complex stressed the necessity of retaining parts of the forests around it for scientific reasons—the complex was built by deforesting a large area—and kept certain patches untouched while giving shape to the city.

A large number of people appear to be involved in the illegal destruction of the forests. Groups of women collect twigs for fuel; some men rip off the branches to build huts; and many others cut the trunks. Jeeps and lorries carry away the felled trees, chopped to sizeable logs. The Durgapur Development Authority feels that the illegal business is growing on such a large scale that "the physical features of the area are being rapidly changed".

The temperature chart shows that the industrial complex is becoming hotter every summer during the past eight years. It is felt in knowledgeable circles that if this vandalism is allowed to continue, life in Durgapur will soon become "unbearable".

The Durgapur-Asansol belt experienced an unprecedented summer in 1966 when the temperature was reported to have shot up to 122°F, causing about 100 deaths. Experts say that the felling of trees and faulty planning caused the unusual heat and they fear that the tragedy will occur periodically if a systematic afforestation programme is not implemented. They also recommend the starting of a green belt here.

It is officially learnt that about 10,000 sq. miles of forest land in Durgapur and Asansol subdivisions was cleared to house industrial plants and townships. The area of marginal waste land steadily increased because of poor irrigation facilities. All these factors resulted in the complete "dislocation of the hydrological balance of the area, affecting its normal climatic conditions".

The different project authorities, who hold most of the land, do not take effective steps to stop the felling of trees. Of course, they plant trees as routine work but many of these die for want of proper care. Some project authorities do not even have guards to prevent the theft of wood. The AVB colony is an exception, however, where the authorities take steps to preserve the jungle near it.

The steel authorities were growing trees on 40 acres of land near the township.

A forest department source said that forest guards were empowered to arrest people for illegal cutting of trees. He, however, admitted that the cutting of trees in the State-owned jungles could not be adequately checked. Denudation was also rampant in the nearby jungles in Bankura and Birbhum.

Zoologist from the German Democratic Republic:

Prof. Dr. Wolfgang ULLRICH, born in 1923 at Dresden, Director of the Zoological Garden in Dresden, German Democratic Republic, Member of the Council of the Academy of Zoology in Agra, India, Member of the International Union of Directors of Zoological Gardens, and Professor at the Technical University in Dresden, arrived in Calcutta on 3rd December, 1968. He is accompanied by his assistant, Mrs. Karin BLUM. Prof. Dr. Ullrich is visited India for the fourth time to observe wild life in India. His special scientific interest is mainly concentrated to the studies of the species of animals which are in danger of extinction, such as the Indian Rhino, swamp deer and wild buffaloes. By his scientific research work, Prof. Dr. Ullrich wishes to create better conditions for the preservation of these animals which are a part of the natural beauty of India.

After his three previous research studies in India in 1959, 1960, and 1963, Prof. Dr. Ullrich published three books entitled (1) "Im Dschungel der Panzernashoerner" (In the Jungle of the One-Horned Indian Rhino), (2) "Hati-Hati" (Elephant—Elephant) and (3) "Wildnis ohne Hoffnung?" (Is Wild Life Without Any Prospect?).

Prof. Dr. Wolfgang Ullrich, has been staying for about 2 months in Kaziranga Wildlife Sanctuary. Prof. Ullrich, after his studies there, recommends the following immediate steps:

The area south of the road from Baguri to Bokakhat and portions of the Mikir Hills into which rhinos and other wild animals move during the flood of the river Brahmaputra should be declared as a Reserved Area.

A separate Wild Life Division should be established within the Forest Department. The members of the Wild-life Staff of Kaziranga should be trained in wild life. The Range Officer should not be transferred within at least 5 years.

Poaching is a big problem confronting Kaziranga. In 1967, 14 Rhinos and in 1968, 9 Rhinos have been killed by poachers. The Wild life Guards should be armed.

Approximately 4000 head of domestic livestock are grazed inside the Kaziranga Wild-life Sanctuary. All domestic livestock grazing should be prohibited inside the sanctuary.

Only 4 Elephants are available at Kaziranga to take visitors inside the sanctuary. At least 10 Elephants are needed at Kohora Tourist Lodge and 4 at Baguri Forest Bungalow. Transportation should be provided for visitors from Jorhat to Kaziranga and from Gauhati to Kaziranga.

I am very thankful to Dr. Robin Banerjee, Honorary Forest Officer and Member of Assam Wild-life Board. He invited me to come to Kaziranga to make scientific studies of the wild-life, particularly of the rhino.

The Society congratulates Shri K.S. Sankhala, I.F.S., on his being awarded Nehru Fellowship by the Jawaharlal Nehru Memorial Fund for a study of TIGERS in India. His application was recommended by the Wild Life Preservation Society of India. It is hoped that the study will lead to more and useful knowledge resulting in conservation of tigers—the star wild life attraction of India.

*

*

*

*

The Society is grateful to the World Wild Life Fund for a grant of \$ 500/- towards the publication of a Special issue of CHEETAL in November, 1969 to mark the General Assembly of the International Union for Conservation of Nature and Natural Resources in Delhi at the invitation of the Government of India. The Society is thankful to Dr. Harold Coolidge, President, I.U.C.N. for recommending the grant.

Himalayan Notes

DODI TAL: POTENTIAL SANCTUARY IN UTTAKRASHI

The sportsman or mountaineer, hunting trophy-game or unclimbed peaks and pleasant pastures, will always find his way to unexplored valleys, but it is the tourist and the wildlife photographer who must be stimulated and encouraged by effective sanctuaries. Such an area is Dodi Tal, where the handwriting on the wall in the form of a motorable road is planned and half-way-executed.

Uttarkashi is a day's bus-journey from Dehra Dun via Rishikesh and Tehri, and only twenty miles or so beyond, via Kalyani and Aghora, lies this delightful lake. Almost seven of the twenty miles are already motorable, and no doubt the rest will soon be made so, the making and maintainance of roads being one of the many things that the new India is rather good at, especially the forest department. Much as one might regret this inevitable opening up of Dodi Tal, till now a preserve of the adventurous and the rugged, the road could be turned to advantage if the immediate vicinity of the lake, say the catchment area, or the area of some fifty square miles between Darwa Top and the lake, could be sanctified against shooting. It is important that not all the valley of the Asi Ganga be declared a sanctuary, because sport often encourages a healthy interest in wildlife, even though it would be easier to draw boundaries to include the entire Asi Ganga drainage, which extends from Uttarkashi to well beyond Dodi Tal. We believe such a plan was almost or actually accepted, and I, for one, was told for years that Dodi Tal was in fact a sanctuary. Even this recent visit of ours had to be only for the trout-fishing in the lake, as we were not issued any shooting permits.

The lake itself occupies a fairly deep glacially-scoured depression, dammed by old morainic deposits, thus impounding the small headwaters stream of the Asi Ganga. The mountain slopes at this elevation of ten thousand feet rise in abrupt sweeps on all but the morainic side, covered in dense stands of conifers, oaks, and higher up, birches and rhododendron bushes. Higher still, over a characteristic forest threshold, lie the gentle swards and pastures where buffalo, sheep and goats graze through the warmer months, but where snow lies deep during winter. These are the thar and bharal grounds, with cliffs and higher peaks giving shelter to these, and the bear and the musk deer. Snow leopard are not uncommon, but it is the goral lower down, and the thar here, that are the most characteristic mammalian fauna, while monal, koklass and tragopan pheasants abound along the forests and their upper margins. Wood partridge are plentiful.

Properly planned and managed, Dodi Tal could become a marvelously popular tourist attraction, with ski-ing facilities, a wildlife sanctuary and possibly an enclosure for the

breeding of high-elevation fauna, a hotel, and the prize-attraction: some of the best trout-fishing in this part of India !

The fish must have been introduced earlier on, and have bred in large numbers in the temperate environment, and lacking adequate feed, their weight remains between one and three pounds. With scientific management, the quality and weight could be improved. Both rainbow and brown trout appear to have cross-bred, but I would not claim to know anything about fish, other than how to catch them on fly and spoon.

An interesting experiment we tried was the guddling of trout with our bare hands, an experiment attended with unexpected success, partly because the fish were so starved after a harsh winter that they were not very wary. It was almost a shame to catch the trout, so we gave up after a good bag which kept us in proteins for our few days there !

Hari Dang,
The Doon School, Dehra Dun.

The Ecology of Mysore Wild Mammals

M. KHADER HUSSAIN, B.Sc.,

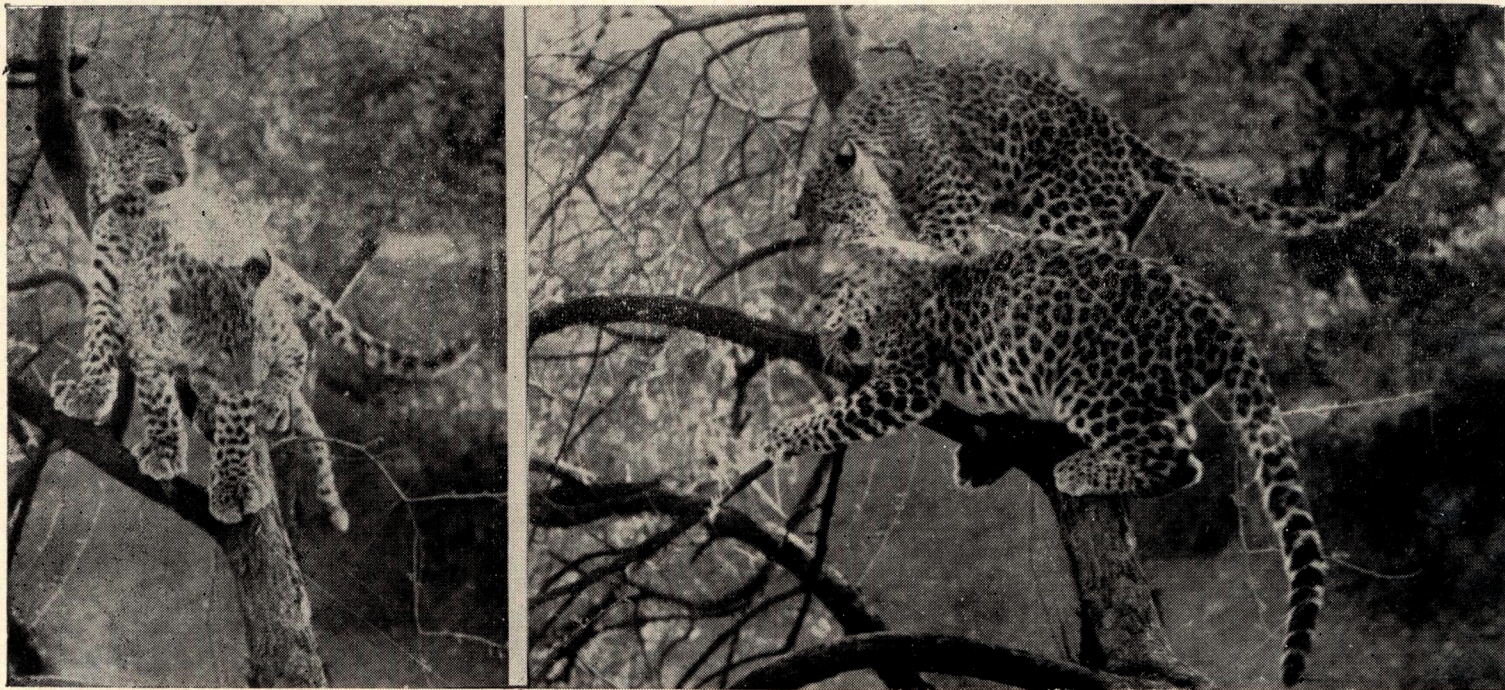
Technical Assistant to Conservator of Forests, Working Plans and Development Circle, Bangalore.

Among the six Zoological realms Mysore plateau lies in the Oriental Region (Tropical Asia with associated continental Islands). The varied features of rainfall, temperature, climate, elevation and vegetation determine the distribution of wild mammals. Animals tend to group themselves within the forest types in accordance with the kind of vegetation to which their food supply is related. This will be a direct relationship if the animals eat vegetation as food (Herbivores) or an indirect relationship if the animals eat other vegetation-eating animals (Carnivores). Each type of forest has its characteristic assemblage of wild animals (animal associations or communities). The most essential factors which keep animals within certain habitats are temperature, water-supply, shade and shelter, food plants or animals, inter-relation with other animals (predators or parasites) and breeding habits. In Mysore which has a tropical monsoon climate the availability of water in the dry season or of food are the prime factors limiting the range of many animals. Temperature does not affect so much due to absence of extremes.

The wide variety of herbivores collectively make more efficient use of the different types of available vegetation and rarely compete with one another. Each species of herbivore has

Its own food or consumes a particular type of grass and shoots at different stages of its growth according to its size (Elephant, Bison, Sambar, Chital, Black buck and others), kind of breeding and habitat preference, its own 'niche', and its own choice fodder. There are the long and short browsers like Bison, Sambar and Spotted deer, browsers (Spotted deer, Barking deer and Antelopes), burrowers and rooters (Wild boar, Sloth-bear and Porcupine). Porcupines not only browse young seedlings of *Bombax malabaricum*, *Hymenodictyon excelsum*, etc., but also dig and eat up the succulent roots of *Bombax*, *Cassia siamea* and *Tectona grandis*. They chew wood and bones and elephant's tusks to splinters to give a trace of salt. Then there are the tree-top leaf and fruit eaters like some langurs and monkeys, and seed and nut eaters such as squirrels, rats, and mice. The principal fodder of elephants is leaves and shoots of *Dendrocalamus strictus* and other bamboos. They are fond of barks of Banyan, Teak and Kydia, Jack fruit and Ficus figs and 'Salt-lick'. A full grown elephant consumes 600 to 700 lbs. of green fodder and drinks 20 to 25 gallons of water a day and visits 'salt-lick' regularly and eats mouthfuls of salt-saturated soil. The bison feeds chiefly on grasses and tender shoots of many species—*Artocarpus hirsuta* and *A. intergrifolia*, *Bombax malabaricum*, *Hopea parviflora*, *Kydia calycina*, *Cedrela toona*, *Dysoxylum malabaricum*, *Bauhinia* species, *Tectona grandis*, *Xylia xylocarpa*, and various other leguminous herbs and shrubs, Wild Banana stems, Cardemom, etc. Sambar and chital browse on a variety of leaves, and also graze on lush grass. They eat a lot, often standing on their hindlegs to crop off branches of saplings of *Santalum album*, *Bombax malabaricum* and *Hymenodictyon excelsum*. They are very fond of fruits of *Gmelina arborea*, *Zizyphus jujuba*, *Eugenia jambolana*, *Phyllanthus emblica* and Ficus figs.

Animal species may be confined to the plains, to forests and scrub jungles, to lakes and tanks and rivers and sea, to thickets and rocky sites and tree-tops. The animals of one forest zone mingle with those of its neighbours. Therefore there are no definite boundaries. Because of the great difference in precipitation in the Western Ghats and Eastern Zones of Mysore State, there is a humid and arid phase to each life. Some species of wild animals respond to seasonal and periodic changes in the forest vegetation by resorting to seasonal migration to other areas locally in search of food, water and shelter. With the first monsoon rains the forest vegetation springs up gloriously. The herbivores like elephants, bison, sambar, spotted deer and others disperse. Each elephant herd (5-50 and upto 100) has enough means to support itself, regulate its number and move about seasonally in search of fodder in the forests, each year—Chiefly local migration within the deciduous and evergreen forest areas. At times several such herds, each led by an elderly cow (60 to 70 years old), assemble together in a particular area where there is good green fodder and water and shade, for about a week or two and then disperse to their respective jurisdictions. Between January and May, bison herds, each consisting of 10-30 and upto 60 animals, seek evergreen sheltered valleys watered



PLAYFUL PANTHERS

Photo by Dinesh Sharma.



The lake with a party of schoolboys. The pastures lie beyond the snow-peak, the habital of "Thar".



The peak of Bhaksia (Asia, 12,000') offers excellent winter and spring ski-ing above Dodi-Tal.

Photos: Arvind Chandihoke.

by perennial streams and lower grassy slopes. With the start of the rains in May, they roam about feeding succulent grass, bamboo shoots and leaves. They quite often follow elephant herds in Mysore and Coorg districts. In Jager valley, Hebbegiri Bababudangiri in Chickmagalur district, Shankergudda, Shettyhalli and Hanagere in Shimoga district Sambar consorts freely with bisons.

The larger carnivores like tiger, panther and wild dogs also migrate with the movements of the herbivores out onto the scrub jungles or grass lands and back into the dense forests. The larger predators prefer places where there are plenty of game (sambar, chital and others), clean water to drink and wallow in and dense cover. The result is that the vegetable sources of the environment, and the geographical variety of its habitats, are utilized or exploited to maximum extent, and with the minimum conflict or competition between the different types of exploiters. Besides, after millenia of selection, the animals became more resistant to diseases and pestilence as compared to the domestic stock. They are also better adopted to hard conditions; for instance, Black buck which is diurnal in habit normally drinks water daily but it can withstand thirst for two or three days if water is scarce. It gets some sap by eating flowers of *Calotropis gigantea*. Black buck gazelle, hares, squirrels, mongoose, fox, and jungle cat prefer arid, open jungle and grassy planes. Animals as well as plants in scrub jungles are adopted to the conditions of aridity. Black buck and gazelle browse as well as graze, consuming grasses, herbs, cereal crops, bitter gourd, bulbous roots and woody plants, depending on the season and stage of growth. Hares nibble green grass.

There is a remarkable diversity among predators and semi-predatory scavengers ranging from tiger, panther and wild dogs to hyenas and jackals—with avian counterparts, eagles, hawks, falcon, kestrel, kite, owl and vulture. And there are the insectivores like the grey musk shrew and the common but seldom seen pangolin or ant-eater (actually termite eater), fish-eater (others) and omnivores (wild boar and sloth-bear). A predator's preference to size of food and the ability to kill a prey of a certain maximum size is limited to its own size, strength, hunting skill and ferocity; for instance a tiger prefers to stalk a well grown bison or a bullock but a forest panther avoids a bison and likes to go after a spotted deer, wild pig, goat, stray dog and the like. In the case of the wild dogs the entire pack makes up for size and strength and attack jointly a full grown bison or sambar or panther or even a tiger, though they are much bigger than their own size and more powerful and ferocious. They run the sambar or spotted deer by severing its eye-lids, tendons of its hind legs, testes or the anal passage and render it helpless and eat the living animal piecemeal while it is yet on the run. Batches of others or several families joined together forage fish and crabs and sometimes frogs in rivers and streams. Similarly herbivores such as bison or domestic buffaloes grazing in the jungle quite often on scenting a tiger in the vicinity herd together,

snort and stick out their massive horns viciously against the approaching tiger. When a herd of bison goes to rest, the elders of the herd sit in a circle, keeping their formidable horned heads outside, keeping an eye towards an oncoming tiger, while the younger animals remaining within the ring trust to the prowess of their elders.

The wild boar when alarmed by an approaching tiger or panther the entire herd acts at once. All the boars gather, often snorting and grunting in front and form a protective screen about it, facing the direction from which the tiger arrives. Within the screen the sows and piglets continue rooting, and no tiger or panther would venture to break it. If it does the boars simply rip up the tiger with their sharp tusks in a dreadful manner. Even the solitary boars are bold and fierce and not afraid to face a tiger on the fringe of the jungle pool. A leopard or tiger can attack a porcupine and overcome its defence, but even so these great cats quite often suffer from quill wounds. The leopard bites the rodent's vulnerable hind and fells it down. The tiger hits its head and smashes it.

Spotted deer live in the moist deciduous zone, from high forest to pole forest, often of poor quality, but especially in the proximity of perennial streams. Their spotted hide make them elude their observation in the surrounding in which they dwell. But more often their protective colouration has no basis whatever in fact. Black and white are naturally the most conspicuous colours, in nature and yet are borne by many animals which have succeeded in the struggle for life; but almost any tint or combination of tints—gray, brown, grayish-brown, etc.—harmonises fairly well with atleast some surroundings in most landscapes. But in some instances among the larger mammals, and in almost none among those roaming in the open plains, the 'adaptive or protective colouration' is of little benefit. The tiger and panther are held as instances of animals that are 'Protectively' coloured and benefited thereby. The panther is certainly much less conspicuous than if it were black and yet the black panthers (melanistic) thrive as well as their black resseted brothers. The peculiar colouration of the rosetted panther is of little benefit to it from the 'Protective' standpoint whether of its escape from its enemies or approach to its prey. It has the facility in hiding and stealthy, sly approach; but it is normally nocturnal and by night its dappled hide is of no use whatever; while by day, its varied colouration makes it more easy to locate it. The fact is that no game of the plains is aided by its colouration in evading its foes and none seeks to escape the vision of its foes. Spotted deer and sambar even at night or moonlit night keep ever nervous and fearful of a prowling tiger or panther, and stampeding from it. The adaptive colouration of animals to their conditions of life is due to an originally created specific peculiarity, or to the direct action of climate, soil or food.

The number of animals a certain locality can support is limited. The biologists' term for this is 'carrying capacity'. The carrying capacity of big game is limited by the amount of food supply. As a rough comparison of fodder requirements, one bison is about

two sambars, and one sambar is equivalent of two spotted deers, or two antelopes. Each animal needs a certain amount of a given quality of range to exist in health and beget its kind. Some mammals and many birds are 'Territorial'. This is a habit pattern that may be an important limitation to the number of individuals an area will support. The territory of a sambar is safeguarded. No other wandering stag is allowed inside. Most sambar hinds breed here. Aged males are eliminated by younger ones—so too does a barking deer. Herbivores like spotted deer and omnivores like wild boar breed and multiply faster than a carnivore like tiger which preys on them. Tigers are therefore fewer in number. Each tiger has its own 'beat' in moist deciduous and evergreen forest zones into which another tiger does not intrude. It stays in a beat for a fortnight or two and when game is scarce it moves to the next beat at a distance of 20 to 30 miles. Carnivores are distributed far and wide as compared to herbivores. Their density of distribution is restricted by the scarcity of food.

The wild animal communities have their own 'diurnal' or 'nocturnal' habit. Birds are generally diurnal. Predators such as tiger and panther and many herbivorous animals like sambar and porcupine come out at night and some like spotted deer and black buck are on the border line. The diurnal animals go to rest at sunset while the nocturnal ones set out in search of food.

Weather too regulates the activities of animals. Tiger and panther do not like to drench in rain. Elephant, bison, sambar, and spotted deer seek shelter of dense forest in summer, and stay in the open forests during the rainy season. They become quite active in the rainy weather as they are not annoyed by the constant drip which falls from the trees, and the biting of gadflies and mosquitoes. There is also a change in feeding habits of wild animals with the season. The omnivorous sloth-bear becomes almost insectivorous during the pre-monsoon when it feeds on black ants, white ants and honey and in the rainy season it lives on fruits of *Eugenia jambolana*, *Gardenia gummifera*, groundnuts, maize, sugarcane and jack fruit. It burrows ant-hills, dips its nose and draws white ants into its mouth by inhaling powerfully. It climbs trees and rocks and tackles combs of rock bee (*Apis dorsata*) and combs of the small bee (*Apis indica*) covering its snout with its palm to avoid the stinging bees. Spotted deer and sambar are fond of the acid fruits of *Zizyphus jujuba*, *Spondias mangifera*, *Gmelina arborea*, *Terminalia bellerica*, *Ficus* figs, and the fleshy flowers of *Bassia latifolia* and *Bombax malabaricum* and also visiting 'salt-licks' to eat the saltish earth and the tigers too will be nearly to prey on the animals that gather there.

During the fruiting-season there is close relationship among the deer, langurs and monkeys in the forest and they are quite often seen. The deer wait below the fruit bearing trees while the langurs and monkeys climb the trees and drop the partly eaten fruits for the deer. Sometimes they shake the branches shedding the fruits to the deer. If a tiger or

panther is sighted nearby the monkeys alert the deer by their chatter and the deer flee into the forest. The monkeys descend from the trees at once and join the deer.

Nature keeps up the optimum population of a wild animal community in a particular habitat with the limiting factors of food, water, shelter, enemies and disease. If there is adequate fodder and protection spotted deer increase in number and forage the forest and hasten scarcity of fodder. Scarcity of fodder may also be due to natural causes such as lack of rains and drought and fire or clearing of wooded country for cultivation. Deer become under-nourished and weak and their breeding ability also is affected and many fall an easy prey to predators. The ability of does to produce fawns varies widely and is correlated with food supply. Ovulation is highest in well developed animals. In the case of elephants only an extraordinary vital tenacity and flexibility in feeding habits have permitted them to survive.

Black buck, gazelle and hare not only adopt themselves to the xerophytic conditions of the scrub jungles but also are able to thrive and maintain constant populations in rather intensely cultivated areas. The degree of ability of a species to adopt itself to agricultural cropping conditions indicates the acceptability to farm wild life management. Hay and small grains in the cultivated lands with some trees and bushes furnish both food and shelter. It is the over riding biotic factor—the poacher—which has driven the black buck to scarcity almost to point of annihilation in some parts of Mysore. Of late, they are protected. Barking deer holds its own despite rifles and traps. Nilgai and hunting cheeta are already extinct in Mysore.

Predators such as tigers, panthers and wild dogs prey on sambar, spotted deer and barking deer and regulate the size of their population to the quantity of food available. They kill langurs and monkeys by exploiting a psychological weakness—their highly nervous strain of apprehension. Wild dogs never increase dynamically as there is often the decimation of entire pack of dogs by rabies and mange in summer when they may be in poor condition due to difficulty of getting enough game. In certain forests where spotted deer have been heavily shot the survival of tiger and panther has become difficult and the advent of Pholidol, an odourless poison, has hastened their extirpation.

Tigers, panthers and wild dogs play a prominent role as agents of natural selection by killing a large number of genetically weak and aberrant animals. Wild cats, civets, badgers, martens and mongooses prey on rats, mice, and hares and check the enormous increase of these prolific rodents. Predators and scavengers are an essential link in the ecological link. Hyenas and jackals are quite intelligent and persistent hunters as well as scavengers. Jackals follow a tiger stealthily to pick up the scraps of the kill left by the tiger. Wild dogs are treated as 'Vermin', but their selective function as predators is now accepted. They

split the herds of spotted deer while hunting, thereby preventing in-breeding, keeping the herds on the move.

Conservation of Wild Life:—Some 50 years ago the forests were so dense that one had to hack his way to pass through them. To-day, the forests are considerably open and are becoming almost grasslands. The forests need once again to be rejuvenated and conserved. The role of forest is a vital factor in long term wild life conservation. The conservation of forest is an essential pre-requisite for the conservation of wild life. The conservation of wild life is recognised as an integral function of the Forest Department. In Mysore State some of the forests, wild life parks and sanctuaries contain many sublime scenes—tall and dwarf trees, grassy glades, cool streams, splendid peaks, colourful wild flowers, wild birds and wild animals, the serenity and refreshing air.

The main impediments for successful conservation are the rapidly expanding human population; the encroachment of forest land occupied by wild animals and reduction of great herds of wild animals; the greater intensity of predating by poachers on the few herds of spotted deer and black buck remaining; predation by animals they do not like; the advent of jeep, search-light, high powered rifle and Phollidol poison; breaking game laws without getting caught; difficulties and laxity in law enforcement; diseases such as foot-and-mouth disease and rinderpest contracted from domestic livestock—bisons succumb to rinder pest; and scarcity of water supply and vegetation.

Conserving the wild animals of the country is a matter of understanding and management in terms of food, water, shelter, and protection to breed and survive freely. The forestry measures generally adopted to protect wild animals are protection of forests from uncontrolled felling, intensive grazing and accidentally or intentionally set fire; balancing grazing with fodder production; selection felling of trees to improve the environment of wild life by making fodder and browse available immediately and some older trees to serve as homes of both mammals and birds; preservation of shade and fruit bearing trees and shrubs to provide both food and cover; raising plantations of mixed fruit, seed and shelter bearing tree species valuable for both timber and wild life and with enough ground cover vegetation; adequate water supply by means of ponds and tanks either within or adjoining the plantation; soil conservation practices such as re-vegetation of eroded areas, contour forming, crop rotation, controlled grazing and construction of water ponds and tanks to improve conditions for wild life; controlled hunting to check over population; and control of predators.

Legal protection is afforded to wild animals under 'The Mysore Wild Animals and Wild Birds Preservation Act-1963'. The State Board for Wild Life advises the State Government on the ways and means of conservation and control of Wild Life and protection of natural resources of the country.

The following are some of the important game animals found in different types of forests in Mysore State. A brief note on each animal is furnished.

Tiger—*Panthera tigris tigris*—*Linnaeus* (Family-Felidae):—Range, moist deciduous forest and evergreen forest zones of the Western and Eastern Ghats—Coorg, Mysore, Shimoga, Chickmagalur and North Kanara. Food, preys on sambar, spotted deer, bison, wild pig, porcupine, bear, and domestic cattle. Breeding seasons, October-November and April-May. Gestation 105 days. Litter size 2-3 and upto 6 cubs born in February-March and August-September. Age of maturity 3 years. Longevity 30 years.

Panther—*Panthera pardus*—*Linnaeus* (Family-Felidae):—Range, open country of the Mysore Plateau and also the high forest clad country and even the evergreen forest. Along the Western Ghats in the moist deciduous and evergreen forests in Arsalu and Jog in Shimoga district black panthers, a melanistic variety (genetical strain) with yellow eyes and a uniform black sleek coat are found. Both black and normal coloured cubs may be born in the same litter. Food, preys on spotted deer, barking deer, mouse deer, langur, wild boar, porcupine, cattle, sheep, goat and stray dog. Breeding seasons, December-February and May-June. Gestation 13 weeks. Litter size 2-4 cubs born in March-April and September and cases all the year round. Age of maturity 1½-3 years. Longevity 20 years.

Elephants—Order-Proboscidae (Family-Elephantidae) **Indian Elephant**—*Elephas maximus*—*Linnaeus*:—Range in Mysore State in a thin 10 miles wide belt of deciduous and evergreen forests of the Western Ghats from North Kanara to Coorg and the Biligirirangan Hills in the South-east and the Eastern Ghats-Basavanbetta and Mahadeswaramalai Hills, and outside the State in the South of Kerala, parts of Coimbatore district, Nilgiri and Palani Hills (South India). Food, grasses, leaves and *Dendrocalamus strictus* and other bamboos, barks of Banyan, Teak and *Kydia calycina*, Jack fruit, Ficus figs, etc., and saltish earth of 'Salt-lick'. An adult elephant consumes 600-700 lbs. of green fodder and drinks 20-30 gallons of water daily. Breeding season, usually in the hot season and at the start of the rains. Gestation period 18-22 months. One calf at a birth. Minimum breeding age 16 and 20 years (both male and female) and in the prime at 45; longevity 75-100 years.

Bisons—Order—Artiodactyla—**Indian Bison or Gaur**—*Bas gaurus*—*H. Smith* (Family—Bovidae):—Range in Mysore State confined to the moist tropical evergreen and semi-evergreen zone and extend to the tropical moist deciduous forests (6,000 ft.), often following the elephant herds in Mysore and Coorg districts. Food, grasses and tender shoots of many tree species and various other leguminous herbs and shrubs and also fond of 'Salt-lick', breeding season, December-January. Period of gestation 9 months. One calf at a birth. Age of maturity of male 1 year and that of female 12 to 15 months. Longevity 20 years.

Deer—Order—Artiodactyla—**Sambar**—*Cervus unicolor nigar*—*Blain ville* (Family—Cervidae):—Largest and heaviest Indian deer and also in South-East Asia. Range, all over Mysore, widely

distributed in the better quality moist deciduous forest and in the evergreen forest along the Western and Eastern Ghats, from the plateau level or lower, to about 6,000 ft. Food, grasses, young shoots of *Santalum album*, *Bombax malabaricum*, *Hymenodictyon excelsum*, *Pterocarpus marsupium*, bark of *Adina cordifolia*, fruits of *Terminalia bellerica*, *Zizyphus jujuba*, *Spondias mangifera*, *Gmelina arborea* and *Ficus* figs and also fond of 'Salt-lick'. Breeding season, November-December. Gestation period 8 months. One fawn at a birth in May or early June. Minimum breeding age 3 years. Span of life 12-15 years.

Muntjac or Barking Deer or Rib-faced Deer—*Muntiacus muntjak aureus*—H Smith—Southern form (Family—Cervidae—Sub-family—Muntiacinae):—Range, widely distributed in Mysore in the better quality moist-deciduous forest, semi-evergreen and wet evergreen forests along the Western and Eastern Ghats from the plateau level to 6,000 ft. or more. Food, grasses, bamboo leaves and seeds, flowers of *Bombax malabaricum* and wild *Bauhinia* species, fruits of *Phyllanthus emblica*, *Zizyphus jujuba*, *Eugenia jambolana*, *Ficus* figs and 'Salt-licks'. Breeding season is winter. Gestation period 6 months. 1-2 fawns born at a time, at the start of the rains. Minimum breeding age 1 year. Span of life 10-12 years.

Chital or Spotted Deer or Axis Deer—*Axis axis axis*—Erxleben (Family—Cervidae—Sub-family Cervinae):—Most graceful of the Indian deer. Range in Mysore State, the moist deciduous zone, from high forest to pole forest, often of poor quality, especially in the proximity of perennial streams, tanks and ponds. Food, leaves of saplings of *Santalum album*, *Bombax malabaricum*, *Hymenodictyon excelsum*, lush grasses, fruits of *Gmelina arborea*, *Zizyphus jujuba*, *Eugenia jambolana*, *Ficus* figs, food crops and 'Salt-lick'. Rutting season April-May. Period of gestation 6 months. Only one fawn at a birth. Minimum breeding age 2 years. Longevity 10-15 years.

Chinkara or Gazelle—*Gazella gazella bennetti*—Sykes (Family—Cervidae—Sub-family—Antilopinae):—Range, Northern parts of Mysore State and South of the river Krishna in light scrub jungle, low hills, large tracts of country dotted with trees and broken up by ravines and nalas, and also on hill tops at the border of cultivated lands; do not prefer open plains as black buck do. Herd of 10-20 animals. Food, various grasses, leaves, food crops, and fruits—deposit dung in the same place as the nilgai do; drink water once in 24 hours, when available if not sustain on the moisture available in the herbage. Breeding all the year. 1-2 fawns are born at a time.

Black buck or Indian Antelope—*Antelope Cervicapra*—Linnaeus (Family—Cervidae—Sub-family—Antilopinae):—Range, open deciduous forest and scrub jungle and Amruthmahal Kavals with vast grassy glades and cultivated plains in the districts of Mysore, Mandya, Hassan, Bangalore, Kolar, Tumkur, Chickmagalur, Shimoga, Chitradurga, Belgaum, Bellary, Gulbarga and Raichur. Herd of 10-30 animals. Food, grasses, cereal crops, and bulbous roots available in arid areas—drink water daily either in the morning or in the afternoon when available, if

not sustain without water for a day or two, and to some extent quench their thirst by eating the juicy flowers of *Calotropis gigantea*—deposit droppings in a common heap but not so regularly as the nilgai do. Breeding season all the year. Period of gestation 6 months. 1-2 fawns at a time are born between September and October.

Four-horned Antelope or Chowsingha—Tetracerus quadricornis—Blainville (Family—Cervidae—Sub-Family—Boselaphinae):—Range, open deciduous forest and scrub jungles with grassy blades in the proximity of perennial streams in Gundalpet, Bandipur and Chamarajanagar in Mysore District. Food, grasses, leaves and buds, fruits of *Phyllanthus emblica*, *Zizyphus jujuba*, and flowers of *Bassia latifolia*—drink water at mid-day daily—deposit their dung in a heap at certain places as do the nilgai and chinkara. Rutting season is in the rains. Gestation period 8-8½ months. 1-2 fawns at a time are born in cold weather (January-February).

Nilgai or Blue Bull—Boselaphus tragocamelus—Pallas (Family—Cervidae—Sub-family—Boselaphinae):—Largest antelope in Asia confined to India. Range, open deciduous forests and low lying hills in Gundalpet and Bandipur in herds of 10-15 individuals. Now, they are extinct. Food, grasses, shoots and fruits of *Zizyphus jujuba* and flowers of *Bassia latifolia*—drink water once in a day and can withstand thirst for long hours—resort to the same spot to deposit their droppings in a heap. Breeding all the year. Gestation period 9 months. One calf at a birth.

A Legend from Lahul

There is a mountain so steep, no snow rests on it. It avalanches to form a sheet of ice gripping its base. It is called M 5. Dark grey rock rising sharply from 15,000 feet to the summit-needle at 21,000 feet above sea level.

The solitary, scimitar horn of an ancient ibex was found by us during our ascent to the top.

Wild grey and mist-sprayed,
Thin and cold in the block
World of slate and quarry-rock
Beyond the crest of the climber's
Summit, into the edge of grey sky,
Moist-blotched and life-starved, distilling
The nothingness of this world,
Lives the finest creation.

Wafted up on a chopping eddy,
The smell of growing things,
Birds' wings, shrubs, herbs,
Seeds of grass, green scrub,
Birch, Pine, flowering mint,
Earth-bound homes, He comes,
Grey rubber tread on grey-dark,
Flatness, moistened by the spray
Of sunlit snow-melt, thinning,
To nothing in thin air.

He comes, Lord and Keeper, at once,
 Of the key; Prisoner and Soldier,
 Of the peace, of the endless war,
 Of high hills, mountain elements
 In ceaseless questing,
 Seeking a better, more perfect form,
 Searching the meaning, Answering
 The Call, of it all.

Not for him the easy risk,
 The soft bliss of lush pasture,
 In sun-drenched village-green, not
 The morning, sun-down round of
 Cropping rarest grasses;
 The fury of grinding ice,
 Is his personal paradise;
 The purgatory of blue-green crimped,
 Tortured sheets on beige-honed
 Down-smooth, cliff-rock.

The Highest world of stances impractical
 Wild, 'foolish', extravagant, futile,
 To burn the heart in hollow fury;
 The desert airs, frigid winter-breath
 Of Shyok and Nubra, Dhauladhar,
 The ice-cut gorges of the Pir Panjal;
 Where Himalayan lungs force oedematic
 breath,
 Where the avalanche yells like bleached bone
 And even the dead live again,
 If only to kill the living.

It is there, in the sun-less horror,
 The grass-less, snowed-down terror,
 Manless comfort,
 Of scree and groaning ice, moving
 Streams of lifeless crystal gem;
 In the rebellious persistence
 Of a precious life; the modest
 Pride of a sufficient clan,
 The dark-bleached warmth of the
 Lahul sun, that he moves, crops,
 The firm sustenance of goat-herd,
 Blue-grass lands below.

No doubt must hinder, no weakness sunder,
 The strength of his wedge-shaped world;
 No storm can frighten, nor cloud heighten
 The urge to warmth; no avalanche drown,
 The desperate clarion, fated challenge
 The beast bears to weakling Man.
 He of sternest stuff is made,
 And knows to keep, the dark deep
 Secret of high hills,
 Where strength flourishes silently.

Yet, awhile, and comes a man with love
 Not of kind or kinder, but
 The warrior sport, the tired
 Hunter from the plains, jaded
 By Jades, goaded by lives
 Of prurience and purposeless pain,
 Of greed and lust and damning error,
 Coward comforts, duty-un-done,
 Man's promise betrayed.

With hate to kill, love
 To cherish, guard from rust,
 From plain to hill, to tree
 To grass, to village green,
 To shepherd camps in woollen tents,
 'Gaddi' dogs, and mountain songs
 In snow-filled valleys.
 In love to kill, in hate to learn
 To love, and find the secret of his birth,
 The joy of his death, to kill
 On this exalted plain, and then
 To curse, to weep that Man
 Be made again,
 In the image of his quarry.

By Hari Dang

Fishing Notes from the Doon

By

S.P. GROVER

Lecturer, Zoology Department, D.A.V. College, Dehra Dun

My interest in fishes was first aroused with my first 'Mahseer'. That is how most of us start. And that is where most of us end. For most of us, knowledge of fishes is confined to angling, which has a more dedicated following than any other field sport.

The fishes occupy a special place in natural history. Fishing used to be good in Doon waters. The Doon is bounded by the rivers, Ganges to the east and the Yamuna to the north-west. However, from fishing point of view the Song and the Suswa are the main rivers of the Eastern Doon, and the Asan of the Western. They are fed by a number of seasonal tributaries.

Doon rivers usually pass over rocky beds and are generally devoid of vegetation. Besides this, the water is crystal clear, the temperature moderate and the dissolved gases and minerals are well-suited to the native finned creatures.

Fishing permits are granted by the D.F.O. of Dehra Dun. Fishing spots in the valley are as under:

(A) Eastern Zone

1. **Dulahani river of Nakronda:** It is 19 kms from the city and is a perennial river. Its bed is more sandy and less rocky. The river originates from Ballawala village and joins the river Song near Lachiwala. The important fishes of this locality are: *Tor putitora* (Mahseer), *Barilius bendelisis* (Chilwa), *Ophicephalus punctatus* (Sewal).
2. **The Suswa of Mothrowala:** It is 9 kms from the city, near Clementtown. It is also a perennial river. Its bed is sandy. Its source is Banjarawala village. It joins the seasonal river Suswa near Doiwala at a distance of 18 kms. The small fishes of this locality are *Barbus ticto* (Potto), *Ophicephalus punctatus* (Sewal).
3. **The Song river of Goolar Ghati:** It is 18 kms from the city on the way to Lachiwala. It is a perennial river. Its bed is rocky. *Tor tor* (Mahseer), *Chagunius chagunio* (Pathali), etc., are the common fishes at this spot.
4. **The Reh river of Koal Kundi:** It is 20 kms from the city and is on the main Hardwar Road. It is a perennial river with a rocky bed. It has its source in the Dulhani river of Nakronda village and joins the Song between Lachiwala and Thano. The peculiarity of this river is that it consists of *Kunds* (pools without any outlet). These

Kunds are rich in *Tor putitora* (Mahseer), *Barilius bola* (Balala the, 'false' front), *Garra gotyla* (Gotyla) and many fishes.

5. **The Song river of Lachiwala:** It is 23 kms from the city and is also on the main Hardwar Road. It is a perennial river, with a bed of pebbles. Its source is the river Reh of Koal Kundi, and it joins the river Song of Kansrao. It is a famous spot for anglers. The fishes of this locality are *Tor putitora* (Mahseer), *Barilius bendelisis* (Chilwa), *Cagunius chagunios*, etc.
6. **The Song river at Doiwala:** It is 27 kms from the city at the road bridge on the Hardwar road. It is a perennial river. Its bed is rocky, sandy and silted at certain points. It is an important fishing centre. The fishes of this locality are *Tor putitora* (Mahseer), *Garra gotyla* (Gotyla), *Glyptothorax pectinopterus* (Patharchatti), etc.
7. **The Song river at Kansrao:** It is 38 kms from the city near Kansrao railway station. It is a perennial river. Its bed is more rocky and less sandy. The fishes of this locality are *Labeo dero* (Moili), *Tor tor* (Mahseer), *Barilius bendelisis* (Chilwa), *Ophicephalus gachua* (Dawla), etc.
8. **The Song and the Suswa rivers at Satnarain:** They are 50 kms from the city near Raiwala junction. The bed of the Song is more rocky and less sandy, but the Suswa is less rocky and more sandy. The fishes of this locality are *Mastacembalus armatus* (Baam), *Labeo dero* (Moili), *Tor tor* (Mahseer), etc.

(B) Western Zone

1. **The Asan river at Kulhal:** It is at a distance of about 42 kms from the city. It meets the Yamuna here. Its bed is of small pebbles. The important fishes of this place are *Labeo calbasu* (Calbasu), *Schizothorax progastus*, *Heteropneustes fossilis*, (Singhi).
2. **The Asan river at Dhalipur:** It is at a distance of 34 kms from the city. Its bed is more sandy than rocky. The common fishes of this locality are *Mystus seenghala*, *Labeo pangusia*, etc.
3. **The River Yamuna near Kalsi:** It is approximately 56 kms from Dehra Dun. The river-bed is sandy and rocky. The important fishes of this locality are *Mystus seenghala*, *Schizothorax progastus*, etc.
4. **The Amlava river at Sahiya:** It is about 75 kms from Dehra Dun. The river bed is rocky with green and brown algae over it. The common fishes of this place are *Tor putitora* (Mahseer), *Xenentodon cancile* (Sooa), *Barilius bendelisis* (Chilwa).

The Delhi Zoo

The Delhi Zoological Park is based on a new concept in Zoo—management. The stress is on large, open enclosures with natural settings, where animals can enjoy sunshine, fresh air and can live as in their habit at.

The Delhi Zoological Park extends over 240 acres, between the high walls of Purana Quila and the imposing tomb of Humayun. The original land was a low-lying area, infested with *prosopis juliflora*. This has been transformed into a beautiful park.

The most unique characteristic of the Delhi Zoological Park is the grouping of animals in their geographical regions.

The park is divided into 4 sections, viz., Indian, Australian, African and American.

The animal collection in the Delhi Zoological Park, though humble, is representative. We have at present 356 mammals, 843 birds and a few reptiles. These include some rare and interesting animals, such as the white tiger, the Indian rhinoceros, American Bison, the brown-antlered deer of Manipur, caracal, binturong, Nilgiri langur, cheetah, and a pair of clouded leopard.

It is hoped that the trio of Golden Langurs would form a breeding nucleus of the species in captivity. In addition to this, a young female rhinoceros was also obtained in March 1968. This, along with a young male rhinoceros, 'Mohan', forms a fine pair on display.

The Delhi Zoological Park has successfully bred the brown antlered deer, nilgiri langur, lion-tailed macaque, white tiger, sloth bear, slender loris and various pheasants.

The future development plans envisage a Natural History Museum, and a serpentarium for snakes and reptiles.

CONSTITUTION OF DELHI ZOOLOGICAL PARK COUNCIL

- | | |
|-----------------------------|---|
| 1. <i>Chairman:</i> | Minister for Food and Agriculture. |
| 2. & 3. <i>Pro-Chairman</i> | 1. Minister of State in the Ministry of Food and Agriculture. |
| | 2. Deputy Minister for Agriculture. |
| 4. <i>Vice-Chairman:</i> | Secretary, Department of Agriculture. |
| 5. <i>Official Member:</i> | Inspector General of Forests. |

6. *Official Member:* Chief Engineer, C.P.W.D.
7. -do- Commissioner, Municipal Corporation, Delhi.
8. -do- Director, Delhi Zoological Park.
9. *Non-Official Members:* 1. Lt. Col. His Highness Maharaja Manavendra Shah of Tehri Garhwal, 5, Bhagwan Dass Road, New Delhi.
 -do- 2. Shri Anirudha Dipa; 180, North Avenue, New Delhi-1.
10. -do- Members of Parliament, Lok Sabha.
11. -do- Members of Parliament, Rajya Sabha.
12. -do- Eminent Publicmen/Naturalists.
13. -do- -do- 1. Shri F.C. Badhwar; 3, Tees Jany. Marg, New Delhi.
14. -do- 2. Raja Bajrang Bahadur Singh of Bhadri, Lucknow.
 3. Smt. Raksha Saran.
 4. Pro. B.R. Seshachar
16. *Member Secretary:* Under Secretary (F), Department of Agriculture.

A Riddle From The Jungle

Ernest Hemmingway begins his story "The snows of Kilimanjaro" with this note. "Close to the western summit (of Kilimanjaro, the snow covered mountain in Africa) there is a dried and frozen carcass of a leopard. No one has explained what the leopard was seeking at that altitude".

Hemmingway's frozen leopard may have been a creature of his fertile imagination. It is equally possible that it did really exist. But all the same it has set an intriguing puzzle. Many even more puzzling things happen in our jungles.

Motoring to Moyar from Masinigudi, both villages situated in the Nilgiris District in the low plateau to the North of the main Nilgiri Range and five miles apart, late one evening, we noticed some vultures sitting on a bare tree by the side of the road. We got down to investigate if there was a kill in the vicinity. There was none. I widened the area of search and found the skeleton of a wild dog complete with skin and hair, the flesh having been eaten

away, apparently by worms and insects. And a few paces away was the scattered skeleton of an immature spotted deer stag. Both skeletons were approximately of the same age, this indicating that the animals had died about the same time and that was only a few days previously.

How did this happen? I did not witness nor did I meet anyone who had witnessed the drama which led to this double tragedy. So I was left with this riddle.

The death of the stag is easily explained. But what killed the dog?

Wild dogs hunt in packs. But unlike the wolves in fiction I have never known them to turn on one another and tear each other apart. So this dog could not have been accounted for by its own kind.

For a moment I wondered if it could have been the work of a tiger or a panther. But then I have heard of and known larger carnivores flee at the mere sight of the "red devils" as wild dogs are sometimes called.

Invariably, the cause of death among wild dogs is disease, distemper and rabies. But somehow it did not stand to reason that this dog should have died of disease at the culmination of a hunt.

I fancied, however remote the possibility, as spotted deer have not been known to fight off wild dogs, that the stag had stood at bay and killed one of its tormentors with a thrust of its horns. But when I examined the skull of the deer, I was disappointed to find that the horns were small and in velvet and could not have been sharp enough for a thrust.

Had a sportsman chanced on a pack of wild dogs on their kill and shot one of them as it often happens? But it was unlikely that this dog had been disposed off in this manner as the spot where this had happened was well within the Mudumalai sanctuary.

Thus many solutions occurred to me, but none would stand analysis. And the more I pondered over this the deeper the mystery became. Indeed this is how it ought to be, as otherwise the woods would cease to be dark, deep and mysterious were it to yield all its secrets.

E R. C. Davidar

Jungle Plague

"How sad. How very sad" my wife sighed holding her nose against the awful stench emanating from the carcass of the "bison" we were gazing upon. It was a cow in the prime of life. It must have suffered a great deal. Its mouth was swollen and it had been purging freely, so freely that its rectal region had everted. As with practically all wild life in distress, it had sought and had died near water, the Moyar River in this case.

We have been hearing reports, from about the end of July this year, of rinderpest sweeping through the jungles at the foot of the northern slopes of the main Nilgiri Range—the Mudumalai, Moyar and Sigur Reserve Forests, in plague proportions. So, I investigated.

In the eight weeks or so of the epidemic, the disease had claimed the lives of over 300 valuable buffaloes and over 100 gaur, in Mudumalai and equally large number in Bandipur not counting the gaur that might have died in remote and inaccessible places. A few Sambur and spotted deer were also found dead, but what caused their death is yet to be determined. Deaths had occurred as far apart as 25 miles. Surprisingly, there has been no casualties among the horde of decrepit cattle in the area.

Encyclopaedia Britannica describes rinderpest thus "an acute, highly contagious disease of ruminants characterised by an unusually rapid course and a high mortality in areas where the disease is not endemic. The causative agent is an ultraviolet virus, provisionally named *Tortor Bovis*".

Rinderpest which is also called the "cattle plague" is so deadly that it has been known to wipe out 98% of its victims in an area.

The virus, it is said, spreads principally by physical contact between diseased and healthy stock. In addition, the disease is distributed by means of discharges from affected animals. Vermin, birds, flies and carcasses of animals that have died of the disease also help to spread the plague. The incubation period is believed to be 3 to 6 days and death occurs after 10 to 14 days.

During this period, except perhaps for the last day or two, a sick Gaur for instance moves about visiting one water hole after another discharging freely from the nose, mouth and other parts, thus contaminating a wide area, unchecked.

In the case of domestic cattle and buffaloes, preventive measures are possible. But in the case of wild ruminants like Gaur and Deer, which are highly susceptible, there is no means of immunising them—at least not in India.

A great majority of the Gaur that have so far succumbed to the disease were residents of the Mudumalai Wild Life Sanctuary. The Wild Life and Sigur Range Officers are, on their own initiative, doing a conscientious job of seeking out and burning the carcass of every infected animal, immediately after death occurs. There is very little more they could do in the absence of organised effort.

The situation is not as dark as it would appear. There are some relieving features. The cattle plague is said to be most virulent at the beginning of an out-break. Let us hope that this stage has passed. Wet conditions are believed to help the spread of the disease. The South West monsoon is lifting and the jungles will soon be fairly dry. And the deer that were found dead, it is reported, did not exhibit symptoms similar to that of the diseased Gaur.

An out-break of this nature exposes the weakness of our wild life policy. We do not need more sanctuaries. But what we need are better managed ones. We must realise that our sanctuaries are not sanctuaries in the true sense where everything is left to nature. Since our sanctuaries are interfered with by man, constantly disturbed, fully exploited and where diseased and decrepit cattle are allowed to roam at will, scientific management has become a necessity.

In an epidemic of this nature ruthless measures are necessary. We must be willing to put down an infected animal or a whole herd of them for that matter, before they pass on the infection, to save the rest. We must be able to cordon off large areas to prevent the epidemic from spreading. In this case, of course with a great deal of effort, the disease could have been confined to the jungles East of the Moyar river where it was raging for a considerable time before crossing over to the Western, and so far as Gaur are concerned, more populated, side. We must be prepared to conduct experiments in immunisation. In this case there was nothing to prevent experimenting with the use of capture guns against Gaur in order to immunise at least a few of them against the disease. In short we must be prepared to spare no effort and expense to prevent an epidemic of this nature from running its fatal course.

This out-break of cattle plague has taught us as nothing else has done, that it is entirely our responsibility to assist nature in finding a solution to a problem of its type. This is the penalty we have to pay for not having given nature a free hand in the management of her affairs.

E.R.C. Davidar

Preservation of the White Winged Wood Duck in Assam

WORLD WILDLIFE FUND PROJECT No. 406

Introduction

Many years ago most of the N.E. corner of India was covered with rain forests broken by numerous rivers and swampy lakes. However man has since reduced these tree covered areas to a very small part of what they were, destroying not only the trees but also the animals and birds dependent on them. Many of the animals have managed to survive in the fields and the few trees left from the onslaught;...some have not.

Amongst the species at present in danger by mans advance into the forests is the White Winged Wood Duck (*Cairina scutulata*), now confined to the few remaining areas of unspoiled jungle. The described range of this species is, Eastern Assam, Burma, Siam, Indo-China, Malaya, Sumatra and Java (Delacour "The Waterfowl of The World" 1959). However over the past few years the only consistent reports of the species have been from the Lakhimpur District of Upper Assam, and the foothills of N.E.F.A., an area of India's North East Frontier at present inaccessible for political reasons.

The late E.P. Gee, who until he died was one of India's most enthusiastic and energetic naturalists who devoted most of his life after he retired to the photographing of wildlife, conservation and promotion of wildlife sanctuaries, first brought the local situation to the notice of the public in his paper for the Bombay Natural History Society Journal of December 1958. Unfortunately this was not followed up by any positive action, and since then it has become obvious that the status of the White Winged Wood Duck has deteriorated still further.

In 1967 C.D.W. Savage, on behalf of the International Wildfowl Research Bureau requested me to assist him in compiling a report for the Third International Regional Meeting on the Conservation of Wildfowl Resources, on the status of wildfowl in Assam. As a result of this report considerable concern was expressed by Savage and Peter Scott who asked me to apply to The World Wildlife Fund for help in developing a scheme for the conservation of the White Winged Wood Duck.

I immediately applied, and whilst awaiting the decision of the W.W.F. Board formed a local working group of enthusiastic planters. The Assam Forest Department was also approached for their help and co-operation.

Local Appreciation

As there had been no effective protection to date for this species locally the first step was obviously to catch and collect birds to create safe breeding stocks. Then, having successfully established these captive breeding stocks the resultant ducks would then be liberated in a suitable area of forest put aside strictly as a sanctuary. It therefore followed that the project should be divided into three main phases.

1. Collection of young Wood Duck and distribution to breeding centres.
2. Establishment of breeding stocks and observation.
3. Establishment of suitable sanctuary and restocking with duck from phase 2.

The immediate task was to get on with phase one. However this was very difficult as these duck are hard enough to glimpse let alone catch. They live in the unspoiled rain forest where visibility is usually limited to a few yards, and to make matters worse only visit water in the early mornings and late evenings.

Although the working group, being mainly Tea Planters, were unable to devote the time to recce the likely areas needed it was found we had another quite big advantage; relatively good communications. Each estate has 'bazaar' days when local jungle people and villagers visit the gardens to sell their produce to the estate labour. The estates all have telephones—that sometimes work—and the planters visit their local clubs at least once a week. This has facilitated the establishment of a reasonably good 'communications system, that is for this part of the world! Due to this system it has been possible to arrange immediate and safe transportation of any young Wood Ducks that may be delivered to estates within a radius of one hundred miles of Doom Dooma.

One further problem which has been most difficult to deal with is the complete ignorance of nearly everyone over recognition and naming of wildfowl species. Fortunately The White Winged Wood Duck in its more plentiful days was heard by the locals making its ghostly honking whilst flying in the evenings and so named "Deo Hans" (Spirit Duck) in Assamese. Pictures strangely enough mean very little to the local people, and this ghostly sound has been most important in identifying the species we require.

Progress

Although the project was not reviewed by the W.W.F. Committee until September 1968 the local working group went ahead with publicity locally, and wrote to the Chief Conservator of Forests, Assam and his Divisional Forest Officers throughout Upper Assam outlining the proposed scheme. These efforts were rewarded when on the 30th August the first two one and a half month old Wood Ducks were handed to me near Duamara Tea Estate by an

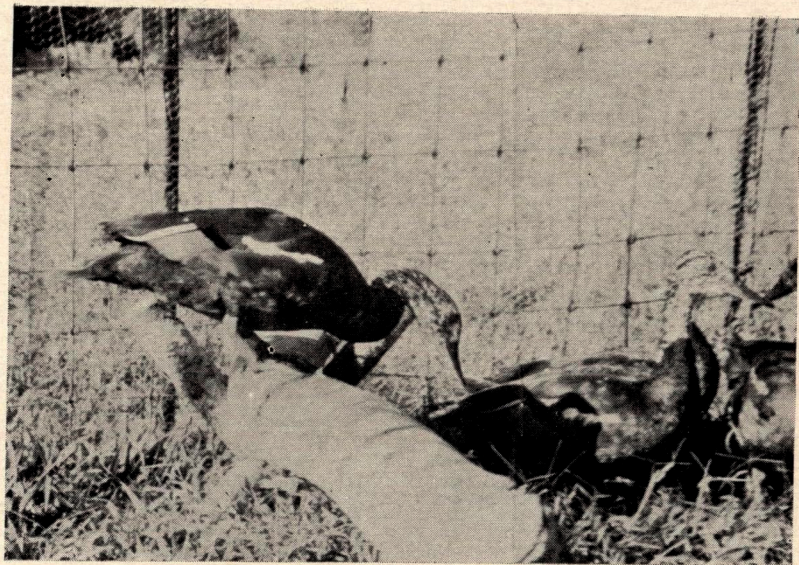
Assamese villager, who in return was given Rs. 200 reward. News of this soon spread into the nearby Sookerating area and two weeks later there were four more young Wood Ducks in the pen. The decision to offer substantial rewards was not taken lightly in view of the adverse experience of the Bombay Natural History Society in other parts of India. In this case it was considered necessary to overcome the natural lethargy and distrust of the local village people who would not normally be interested in birds.

Once news of the project being sanctioned reached Assam I approached The Assam Oil Company for whom I had painted pictures for their 1969 calendar, and asked them to use one of these prints for a poster. They very kindly consented and have supplied us with five hundred copies in Assamese and five hundred in English. Two W.W.F. notices were painted, featuring the Panda, one for my own Tea Estate (Deeamoolie) and one to place in Doom Dooma town, to help people find us and to promote the project locally. This idea misfired in a somewhat unexpected way when a local gentleman visited to see the 'black and white bears'! He was most annoyed to be shown only ducks. It has in fact been most difficult to make the simple jungle villager believe that anyone is prepared to pay a large sum for a duck without some ulterior motive and I foresee this as being a recurring problem in the future.

Of the six ducks collected only one proved to be female. Efforts were therefore made to procure another female from a party of birds which was visiting a small tea waste destruction pond on the jungle edge at Bogapani Tea Estate. With the help of one of the working group of that estate, one bird was eventually captured. However it died within three days, and as it had not been injured during capture an autopsy was carried out. This disclosed death from pneumonia caused by aspergillosis fungus in the lungs. Later it was noticed that the party of Wood Ducks dwindled to one and further deaths from this cause must be suspected both here and in other similar localities. After a long period of drought the only water available near tea gardens is likely to be polluted ponds and streams which issue from them. It is planned therefore, to avoid risk of infection, to concentrate on collection of young birds hatched from eggs or found by villagers in the forest rather than try further capture of Wood Ducks visiting more accessible areas. This may be a key to one of the reasons that this species is not surviving near human habitation.

Observations

Meanwhile our young stock was growing fast and feeding mainly on large quantities of earth worms, small fish, fresh water prawns and frogs. They preferred live food but would quite happily consume minced meat or chopped fish as an alternative. At about four months their appetites were considerably reduced and they became content with a diet largely of grain.



White winged Wood Duck, Assam.



Two Bharal Ewes

They are plentiful in spring and early summer on the pastures above Dodi Tal.



Two bharal ewes, 2 lambs at Bisca 11,500 feet.

Photos : Hari Dang.

At about two months white could be seen on the wing coverts, also black and white peppering at the base of the bill. The female in the group developed conspicuously faster than the males and on October 14th was the first to fly. A further interesting observation was made when some domestic hens walked past the enclosure one duck moved aggressively towards the chicken hissing and fluffing out its head feathers, with head thrust down and forwards, and partially developed wings turned up and forwards to display the white patches much as a defensive Owl or Hawk might be expected to do.

At four months old the primaries had grown sufficiently to sustain weak flight but it was not until the fifth month that the typical ghostly honking and wheezing was to be heard which gives this species its local name.

At this stage it became necessary to clip their wings to avoid the birds hurting themselves when visitors wished to see them. Although they took no notice of my family, house servants, dogs or the sound of the car, any stranger or strange animal caused complete panic. This would seem to support D.G. Schuyt's theory that to breed successfully in captivity seclusion is necessary.

Present Situation and Future Prospects

After seeking the opinions of the advisory committee it was decided that all six birds so far collected should be dispatched to The Wildfowl Trust as the nucleus of a future breeding stock. This decision was made as The Wildfowl Trust is the most qualified organisation to begin the task of forming a breeding stock—Phase two.

The prospects of obtaining further birds for breeding stocks appear fairly good providing funds can be obtained to meet the necessary expenses. It is proposed that the main breeding programme shall be conducted by The Wildfowl Trust and later also a local breeding establishment be formed at Gauhati Zoo in Assam as and when arrangements can be completed.

The establishment of a permanent sanctuary is going to be more difficult due to the acute shortage of virgin forest and national demand for timber. Nevertheless the obvious need for a permanent wildlife reserve in primary Assam plains rain forest is absolutely imperative if future generations are to inherit anything of the already fast dwindling flora and fauna of this state. This project will help to locate an area which will meet the requirements of the White Winged Wood Duck and those of all other plants and animals existing in this environment.

M.J.S. Mackenzie,
Deamoolie Tea Estate, Assam.

It Happened in India:

DIPLOMATIC IMMUNITY

1. They were photographing, or trying to photograph, nude tribal dancers and wildlife in a Sanctuary in the state of No tiger, panther, gaur or bear obliged them, and even tribal people have their immense dignity, so the visitors had to be shown something sensational to please them, to make their trip worthwhile. So, a night-drive, armed with easily acquired weapons from villagers, was arranged. The guard who could not show them wildlife in his sanctuary in the daytime, because it was so badly disturbed by cattle and villagers, pointed out eyes on several occasions in the lights of the jeep. And two chital hinds were bagged. Came the Warden, a conscientious man, working against heavy odds. Send them to prison? Fine them? Shoot them on the spot? No! We are a civilised nation, and they? They were foreign diplomats, merely exercising a latter-day neo-Imperialist privilege of the fairer races!

They went away Scot-free

FOREIGN COLLABORATION

2. A wealthy forest contractor took his foreign guest out, shooting black buck in late August last year. A herd was sighted near Chandak (N. Rly. Station) and the foreign 'SPORTSMAN' fired a number of buck-shot on the herd while chasing it in a jeep. Finding the bucks strangely 'protected' against shot, he angrily showered a hail of bullets from his rifle.

An undersized buck and a small doe reluctantly obliged the foreign guest. Trophy heads, however, cocked a snook at the 'Sportsman' and, presumably, smuggling a few foreign buck-shot under their coveted hides, disappeared over the distant horizon.

And thus ended a 'glorious' example of collaboration between foreign 'Know-how' and Indian Capital.

V. S. Sirohi,
Bijnor.

And How They do It Elsewhere

In Tanzania and South Africa, poaching has been confined and reduced, and permit-holding legitimate sportsmen are being encouraged to help the efforts of the Game Warden staff by helping to run down poachers' gangs.

In Indonesia, National Parks are to be rendered free from forest exploitation operations and all outside interference is to be minimised.

Letters to the Editor

Sir,

I thought I must write, after reading your most interesting article on the Goral of Benog. I wish I had known that your article was going to be published so soon as I had a picture of a Goral on Benog taken quite recently.

Sir, I would like you to know that Goral do *not* spend their nights in depth of ravines choked with vegetation, as they fear the prowling panther. They spend the nights under sheltered cliffs, where they are safe, and have ample warning should a panther try to sneak up to them.

It is only in the early mornings, after basking in the sun and "eating air", that they go down to the sheltered ravines.

Kr. Brijendra Singh of Kapurthala.

* * * *

Dwindling Lions in India

Sir,

After the depredations of the so called sportsmen during the last century and early part of the present century, the few lions left in Gujarat, the last stronghold in our country, happily multiplied to about 285 in the Gir forest after the local Government declared the area a sanctuary and forbade all shooting. But it is indeed sad to learn that at the recent census there are left only 177, indicating a reduction of 38% of their population, instead of a rise.

This alarming reduction is attributed to poaching and poisoning by local Maldharis—the graziers who resort to cruel methods of killing off these majestic beasts to protect their cattle grazing in the sanctuary. In the old days the activity of the shikaries when the Nawab of Junagad had to offer a lion or two to every V.I.P., reduced the lion population. In this context, mention may be made of the noble-hearted Duke of Clarence and Lord Curzon, who declined the offer to shoot lions when they heard their numbers were dwindling. In contrast, the recent killing by Maldharis in the area declared a sanctuary is indeed most heart-rending. The severity of poisoning can be gauged from the reported death the other day of a full grown lion, surrounded by 50 dead vultures in the Jamwala range of Gir forest. These heartless depredators can be shifted from the sanctuary area and provided grazing ground elsewhere, if some trouble is taken. The wild life board should move in this matter of providing alternate pasture-lands and call a halt to this gruesome killing of the king of the forest, to preserve this rare fauna in our country for future generations.

A.S. Venkatachalam.

* * * *

Tigers and Gin-traps

Sir,

Recently, news items appeared in the papers telling about a tiger trapped by a paw in a trap, in the Kaluwala Block of the Saharanpur Division of the U.P. Enquiries subsequently made revealed that the tiger will probably not be handicapped in its future hunting to become a menace to man.

I cannot help recalling an almost identical case which I had the opportunity to witness about six years back in Pilibhit Forest Division and which ended differently.

I was on a courtesy visit to the Range Officer Mahofe, and was chatting with him at noon one day when somebody brought the news that a tiger was trapped near the embankment of Sardasagar reservoir in the forests of Hazara.

When we reached the place, we saw an assembly of more than a thousand people, of all ages and descriptions. On enquiry I learnt that the tiger was caught in the trap sometime during the previous night and an early herdsman, going out with his cattle, was attracted by the low growls and thinking it to be some small animal, actually poked the tiger with his long bamboo stick. The tiger jumped up and roared with agony. The grazier, bewildered at his discovery, ran back to the village as fast as he could. Soon a crowd gathered and the tiger which had been lying quiet, growling only when it hurt its paw in attempts to free it, kept on roaring. By the time we reached the spot the crowd had thickened. The tiger had grown weak due to continuous roaring, thirst and hunger and now it roared only when it was scared or it wanted to scare away the men who, notwithstanding the danger involved, were venturing too close. And the roars, which were said to be thunderous in the forenoon, were reduced to agonising squeals and whimpers now. Everytime the tiger heard anybody approach too near, it jumped and roared, when the mob would scatter. In the melee of shouts, shrieks, laughter and stampeding all was confusion.

The responsible ones among the people conferred and unanimously decided that the tiger should be killed. It was certain that it could not free himself from the trap and since it was not possible for anybody to go near the tiger to release it, killing it was the only way out. But the problem was who should kill the tiger and how. I was of the opinion that the tiger, when hit by the shot, would take a final leap and would quite possibly free itself. I was not familiar with the type of trap used nor was I able to imagine a trap which could hold a wounded tiger.

Finally a young canal overseer came forward and shot it.

Before leaving the place, I inspected the trap carefully. It was a circular ring of flat iron, about one foot in diameter and made of 2 inches wide strip metal. One half of the

ring was a whole piece but the other half was divided along the middle of the periphery into two equal parts. The inner sides of these two half-strips were toothed, and were hinged at the ends. The whole ring was anchored to the ground with a chain. Such a trap, called a gin trap, is never meant for big animals but is laid to catch porcupines, pigs and hares. The unlucky tiger had placed its right forepaw between the two open lips of the trap and was caught between the meshing teeth, just along the line where the fingers join the pad. Had its forepaw been caught to a lesser extent it could have jerked it free with, of course, some damage to its paw. And had the whole paw been caught in the trap it could have perhaps uprooted the contraption along with the anchorage, and could have got away. But as the case was, it could neither free its fingers due to severe pain nor could it pull the small trap from its anchorage. So it had to be killed and freed from its misery.

P.R. Singh,
Forest Ranger, Lachiwala.

*

*

*

Sir,

A few might have viewed following unusual action and behaviour of a tiger but for me it is a maiden-experience which I would like to narrate for those who haven't so far.

On 8th November, 1968 on way back to Kanha via Soaph-Kanha forest road and near junction of Link road No. 9 at about 18.30 hours when it was pitch dark I noticed a tiger was lying with its left fore and hind legs quite vertical to the ground while remaining portion of the body was in normal and spread in resting position. Its body was in oblique position to the road while head and lower portion in depression of the right rut of the road. The middle and the sides of road are covered with tiny grass of about 2 inches height. I judged the animal as the entire chest, belly and the inward portion of the vertical legs stripped with black and cream colour were fully exposed to head light of the jeep. The driver could not judge the animal as I understood later on (He may be of poor vision or colour-blind) and steered the vehicle on the animal. So, immediately I cautioned him to drive the vehicle aside. When it reached less than a yard it started raising head and the vehicle just passed a few inches from its fore paws. Having realised the handicaps the reaction of tiger could not be watched then.

The next day in early morning the spot was again visited by me from where it got up and went up the road for about 30 yards and again fully stretched on the impressions of the jeep tyres left by us last night. I recorded the measurements from the impressions left fortunately on fine earth. Distance between fore and hind legs (average) 4 ft. 8.5 in. Front paw 6.4 in. by 5.25 in. Height 4.1 ft. Length from head to tail 10 ft. 3.25 in. The impres-

sion of about half of the tail was not clearly visible so I have added 1.5 ft. to the above length.

Yours faithfully,

M.A. Rashid Khan,

Asstt. Conservator of Forests, Incharge Kanha National Park.

* * * *

Sir,

The recent tour of the Rajaji and Kansrao Sanctuaries in March by the members of the Fauna Preservation Society, U.K., was an eye-opener for me. The word "sanctuary" for this area is a misnomer, as there is hardly any game visible in the forests. This, after 18 years of their being declared sanctuaries.

Besides the much discussed evils of felling and poaching, grazing by the gujar herdsmen is another important factor which has led to this decrease in game. The Society should attempt to arouse public interest against this threat, and also bring it to the notice of the Government.

Yours etc.,

'Conservationist.'

* * * *

Bisons dying of Rinderpest

Sir,

It would appear that Rinderpest has broken out among wild bisons in the Kankankote and Biligiri Rangan forests vide D.H. dated 11.8.68. Obviously the infection should have been conveyed from domestic cattle which have access to the jungle pastures in these drought stricken days when fodder has become extremely scarce.

The forest and veterinary departments seem to be confronted with the problem of inoculating the wild bisons against the fatal disease. I would suggest that special darts with the desired quantity of the protective vaccine with the aid of special delivery guns could be used as it would be difficult to capture wild bison alive and administer the vaccine. In the alternative the beasts could be temporarily knocked down with the help of tranquiliser darts containing phenobarbitone of sodium delivered through special small guns or with bows and arrows when the vaccine could be injected by a vet, during the stage the animal is immo-

bilised. As the anaesthetic effect of barbitone passes off the bisons will regain their normal activity and will be protected from the dread disease—Rinderpest. The wild fauna will thus be saved from extinction.

A.S. Venkatachalam.

* * * *

Extract from the Practical Poultry Keeper by L. Wright

Sir,

“Pea-fowl are tolerably familiar, and if regularly well fed will get very tame, and tap at the window when neglected. They are, however, ill-natured, and frequently beat and even kill other fowls, sometimes even attacking children. From this cause they are ill adapted to keep in a general poultry-yard, apart from their natural impatience of restraint. Young chickens in particular the cocks will often kill, and we believe even eat afterwards. Their proper place is on the lawn or in the park, where the splendid hues of the cocks show to great advantage, and their peculiar shrill scream is not too near to be disagreeable”.

To solve this much vexed question I suggest that a spot be selected where wild pea-fowl normally frequent and they be fed to further attract a goodly congregation of them there.

Then to facilitate matters, these pea-fowl's reaction to young caged chickens and a couple of nests with fowls eggs in them being conveniently placed nearby which could be watched from a suitable hide-outs preferably around about their feeding time.

The magnitude of the depredations carried on during the breeding season could well be gauged. Pea-fowl undoubtedly with the protection of the total ban on their shooting are making it a good bit too rough for other birds that happen to be their neighbours.

2612 Chandernagar,
Saharanpur.

S.C. Campbell.

कैमरे द्वारा जंगली जानवरों की शूटिंग

रामेश बेदी

उत्तर प्रदेश के तराई के जंगल अनेक प्रकार के जानवरों से भरपूर हैं। यहाँ मुझे सदा फोटोग्राफी की लुभावनी सामग्री मिली है। हरिद्वार, ऋषिकेश और देहरादून के बनों में तो जंगली जीवों की बहुतायत है ही, हरिद्वार से गंगा पार कर लें तो हम जानवरों के स्वर्ग में पहुँच जाते हैं। शिवालक पहाड़ों के साथ-साथ जंगल की एक कच्ची सड़क हरिद्वार से रामनगर तक चली गई है। सौ-सवा सौ मील के इस अरण्य-पथ पर दो ऐसे जंगल पड़ते हैं जिन्हें जानवरों के लिए अभयस्थल घोषित किया हुआ है। इनमें से एक तो मालिन सैकचुरी है और दूसरा कीबैट नेशनल पार्क।

इस क्षेत्र में मेरा मदमस्त हाथियों से सामना हुआ है और लहू के प्यासे भालुओं से टाकरा भी। यहाँ मैंने दहाड़ते हुए शेरों के बीच में रातें गुजारी हैं और बनराज के प्रतिस्पर्द्धी बनले सूअरों के बीस फीट दूरी से फोटों लिए हैं। यहाँ हिरण इतनी तादाद में हैं कि उन्हें देखकर आंखें तृप्त हो जाती हैं और कैमरा धन्य।

चीतल और पाढ़े हिरण भुण्डों में रहते हैं। मोटे तौर पर ऐसा लगता है कि इनके फोटों लेना आसान होगा। लेकिन ये बड़े चौकन्ने होते हैं और जरा सी आहट पर भाग खड़े होते हैं। एक बार मैं इनके पीछे ऐसे चौड़ में पहुँचा जहाँ चीतल का एक भुण्ड चर रहा था जिसमें पचास से ऊपर हिरण थे। पाढ़ों की चार टोलियाँ थीं जिनमें सदस्यों की संख्या पाँच से लेकर तेरह तक थीं।

चौड़ लगभग पाँच मील लम्बा और तीन मील चौड़ा था। बीच में इक्के-दुक्के पेड़ खड़े थे, वरना मीलों तक घुटनों ऊँची घास चली गई थी। ऐसे बढ़िया चरागाह में दिन भर में सैकड़ों हिरन चले आते थे।

उसी दिन हालात हमारे अनुकूल नहीं थे। पहले तो किनारे वाले हिरण ने हमें देख लिया और खतरे का संकेत दे दिया। इससे टोली भाग खड़ी हुई।

उनके पीछे पाँच-सात मील का चक्कर लगा गया, लेकिन एक भी काम का फोटों नहीं मिला। एक टोली अगली टोली को आगाह करती गई और सभी हिरण देखते ही देखते कुलांचे भरते गये।

गर्मियों के मौसम में जब पानी के अधिक स्थान सूख जाते हैं तो गिनती के कुछ ही जलकुण्ड बचते हैं जो जानवरों को आकृष्ट करते हैं। पैरों के निशानों को देखने से पता चल जाता है कि यहाँ अमुक-अमुक जानवर पानी पीने आता है।

दोपहर बाद एक रोज मैं फोटोग्राफी के लिए निकला। एक जलकुण्ड में सूअरों की एक टोली नहा रही थी। एक सूअरी के साथ तीन बच्चे थे जो उसकी इसी साल की सन्तानें थी। एक शरारती बच्चा पानी से निकल कर बाहर आ गया। किनारे उगे हुए मोथे की खुशबूदार जड़ों में उसका मन अटकता हुआ था। अपनी

नहीं थूथनी से वह उसे खोदने की प्रेक्टिस कर रहा था। उसकी निगाह हमारी टोली पर पड़ी और वह गुराँता हुआ भाग खड़ा हुआ। उसके संकेत को सुनकर सभी सूअर तितर-बितर हो गये।

चरते समय सूअर की निगाह नीचे की ओर होती है। वह एकदम बेसुध चर रहा होता है।

हाथियों की तलाश में एक बार हम नाले के अन्दर जा रहे थे। गनमैन सबसे आगे था। वह हर छोटी-बड़ी बटिया से वाकिफ था। दो फलाँग जाने के बाद बायें हाथ एक चौड़ आ गया। हमारा ख्याल था कि हाथी यहाँ चर रहे होंगे। गहरे नाले में से गनमैन ऊपर चढ़ते ही भट परत आया।

चौड़ में चरते हुए सूअरों की टोली को उसने देख लिया था। यह टोली धीरे-धीरे हमारी तरफ ही बढ़ रही थी। हम लोग वहाँ गढ़े में बैठ गये। फिर मैं घास में रेंगता हुआ साथ के पेड़ की ओट में खड़ा हो गया। वे मेरे से बीस-पच्चीस फीट की दूरी पर होंगे। कैमरे की क्लिक को सुनकर एक बार एक सूअर ने तिरछी आँख से मुझे देखा। मैं ठूँठ की तरह निश्चल खड़ा था। मेरे खाकी रंग के कपड़े भी जंगल के रंग से मिले हुए थे। उसे जरा भी भान नहीं हुआ कि यह कोई आदमी है। वह फिर चरने में लग गया।

इन जंगलों में खजूर की एक किस्म मुखजूर उगती है। इसमें तना बनता ही नहीं। भूमि के साथ ही इस खजूर पर फल निकल आते हैं। सूअर इन फलों को चाव से खाते हैं। मुखजूर वाले चौड़ों में शाम को सूअरों की पाँच-छह टोलियाँ मिल जाती हैं। हर टोली में चार से छह तक सूअर रहते हैं। यदि हम चौड़ के किसी पेड़ के ऊपर मचान पर बैठ जायें तो इनके फोटो लिये जा सकते हैं।

हाथी की पीठ से, मचान से, पैदल और आड़ में छिपकर सभी तरीकों से मैंने जंगली जानवरों के फोटो लिये हैं। हाथी की पीठ से एक बड़ी सुविधा यह होती है कि अधिकतर जंगली जानवर उसे देखकर डरते नहीं। वे उसे भी जंगली हाथी मान बैठते हैं। जंगल की दुनियाँ में मैंने यह देखा है कि सामान्यतया सभी जानवर एक दूसरे की सुविधा का ध्यान रखते हैं। अकारण किसी से छेड़खानी नहीं करते। इसलिए अलग-अलग जाति के जानवरों की मौजूदगी में भी चरते रहते हैं। हम उनसे दस-पन्द्रह गज की दूरी पर अपना हाथी ले जाते हैं और जिस एंगल से चाहें फोटो ले सकते हैं।

शेरों, हिरणों और सूअरों की फोटोग्राफी के लिए आड़ उपयोगी रहती है। आड़ में छिपकर फोटों लेने के अनेक लाभ हैं। इसमें जानवर हमारे इतना अधिक नजदीक आ जाता है कि अचरज होता है। जानवर को हमारी मौजूदगी का पता ही नहीं होता। कई बार वह कैमरे की न्यूनतम रेंज के भीतर आ जाता है। इतने पास से फोटो खींचे ही नहीं जा सकते।

एक दिन हम ओट में बैठे थे। ताजे फूस को काटकर बनाई हुई यह छोटी सी भोंपड़ी थी जिसमें दो आदमी समा सकते थे। इसमें हमने कैमरों के लिए दो छिद्र रख लिए थे। यह एकदम काम चलाऊ कच्ची भोंपड़ी थी जो जंगली जानवरों से जरा भी सुरक्षित नहीं थी। हाथी के तो एक मुक्के से ही इसकी घज्जियाँ उड़ सकती थीं और भालू भी इसे मजे में रौंध सकता था।

यह स्थान ऐसा था कि जहाँ जंगली हाथी, शेर, भालू, सूअर, लकड़बग्घे, सांभर और सभी जानवरों के आने के समान अवसर थे। हम सभी का स्वागत करने बैठे थे, लेकिन हाथी और भालू के खतरे के प्रति पूरी तरह शंकित थे। ये बिना बात भी इंसान को मार डालते हैं। सुरक्षा के लिहाज से मैंने गनमैन को दो फलांग दूर तैनात कर दिया था।

जलकुण्ड के उस पार जंगल से एक चीतली निकली। उसने अपने दायें-बायें गरदन घुमायी। जब उसे निश्चय हो गया कि खतरा नहीं है तो उसने पीछे झाड़ियों में अपनी मोटी आंखों से ताका। वहाँ खड़े हुए अपने छौने को उसने मूकभाषा में बुलाया। छौना भी बालू तट पर आ गया। माँ-बेटे ने छक कर कुण्ड का शीतल जल पीया। गरदन ऊपर उठाई। इतने में इनके दूसरे साथी भी आ गये जिनमें शाखादार सींगों वाला एक खूबसूरत भालू भी था।

निर्मल जल में अपनी गठी हुई देहों की परछाइयों को देखते हुए यह टोली पानी पी रही थी। अचानक उनमें खलबली मच गई। इसका कारण बन्दर का एक छोटा बच्चा था जो जामुन से लटकती हुई शाखा से बालू तट पर कूदा था। कूदने के साथ ही वह जंगल में अदृश्य भी हो गया। यह सब इतनी जल्दी हुआ कि चीतल कुछ समझ ही नहीं सके।

एक चीतल पानी के अन्दर दायी तरफ, दूसरा बाँयी तरफ तथा एक सामने ही भाग खड़ा हुआ। बच्चे वाली चीतली कुण्ड के बीच में एक टापू पर रुक गई। अगले पैर को वह गुस्से में बार-बार बालू पर पटकने लगी।

पानी को पास करके कुछ चीतल भोंपड़ी के पास आ गये। मेरे कैमरे में उस वक्त ऐसा टेलीलेन्स लगा हुआ था कि काफी दूर की चीज को फोकस करता था। कुण्ड के पार तो हिरणों के मैंने फोटों खींच लिये पर भोंपड़ी के साथ खड़े हुए हिरणों के लिए टेलीलेन्स बेकार हो गया। यहाँ तो नॉर्मल लैन्स का या वाइड एंगल लैन्स का काम था।

इस कैमरे से टेलीलैन्स उतार कर मैं दूसरा लैन्स लगाता—इसके लिए समय ही नहीं था। ऐसी अप्रत्याशित घटनाओं के फोटो लेने के लिए अलग-प्रलग कैमरों में भिन्न-भिन्न प्रकार के लैन्स लगाकर कैमरामैन को तैयार रहना चाहिए।

वन्ध जीवन की फोटोग्राफी के लिए कैमरे ऐसे होने चाहिए :

1. जिनकी शटर स्पीड ऊंची हो जिससे तेज गति में जाते हुए जीव के फोटो लिए जा सकें।
2. जिनमें फोकसिंग आसानी से किया जा सकता हो।
3. जिनमें फिल्म काफी लम्बी भरी जा सकती हो जिससे एक ही घटना के ज्यादा से ज्यादा फोटो लगातार लिये जा सकें।
4. जिनमें एपचर और शटर स्पीड की एडजस्टमेंट भट की जा सके।
5. जिनमें फिल्म को चढ़ाने, फोटो खींचने के बाद फिल्म को घूमाने और एक्स्पोज की हुई फिल्म को निकालने में कम समय लगे।

बाज़ी दफा एक घटना के लगातार फोटो खींचते हुए फिल्म खत्म हो जाती है और जब तक हम एक्स्पोज़्ड फिल्म को निकाल कर नयी फिल्म चढ़ाये तब तक कुछ महत्वपूर्ण चीज़ों के फोटो लेने से हम चूक जाते हैं। ऐसे मौके पर मन बड़ा खिन्न होता है।

उस समय यदि दूसरे कैमरे में फिल्म भरी हुई है तो काम चल जाता है।

एक बार मैं हाथियों के फोटो ले रहा था। दिन भर काफी फोटो ले लिये। भुण्ड में सूअर के बराबर एक नन्हा बच्चा भी था। पानी में नहाना, सूण्ड के सिरे से घास पकड़ कर खींचना, माँ के संरक्षण में चलना, पहरों में निश्चिन्तता से सोना उसके इसी तरह के क्रिया-कलापों में हम दिलचस्पी ले रहे थे और कामयाबी से फोटो खींचते जा रहे थे। माँ का दूध चूँघते समय वह बड़ा प्यारा लगता था। इस पोज में हम उसकी फोटो लेने के फिराक में थे, पर कुछ न कुछ बाधा आ जाती थी।

एक बार वह हमारी रेंज में आ गया। उस समय प्रकाश का स्रोत भी अच्छा था। लेकिन दुर्भाग्य यह रहा कि कैमरे में फिल्म पूरी हो चुकी थी। जब तक नई फिल्म डाली गयी उसने दूध पीना समाप्त कर दिया।

अधिकतर जानवर सुबह या शाम के भुटपुटे में अपने निवासों से बाहर निकलते हैं। उस समय फोटो खींचने के लिए पर्याप्त प्रकाश नहीं होता। इस कमी को दूर करने के दो उपाय हैं। एक यह कि फिल्म हाईस्पीड की इस्तेमाल की जाये और दूसरे यह कि कैमरे का लैन्स पावरफुल हो।

जंगली जानवरों के फोटोग्राफर को प्रकृति से जबदस्त संघर्ष करना पड़ता है। जानवरों की तलाश में पैदल ही पहाड़ों को लांघना होता है, लू के थपेड़ों से अपनी खाल को झुलसाना होता है और तपते हुए सूखे प्रदेश में मीलों प्यासा भटकना पड़ता है। कांटों से उसका शरीर बिंध सकता है और जंगल की आग में वह फंस सकता है।

इतनी दौड़-धूप और कड़े परिश्रम के बाद फोटो अच्छे आ गये तो सचमुच कैमरामैन अपने को कृतार्थ समझता है। जंगली जीव के एक अच्छे फोटो के पीछे न जाने कितनी ही असफलताएँ छिपी रहती हैं। जीवन का खतरा तो प्रतिपल रहता है। हर भाड़ी जैसे एक दानव हो और उसमें से कौन जाने कब एक भयंकर जीव की उत्पत्ति हो जाय जो हमारी देह को मसल डाले।

जिन जंगलों में मैं इस साल जानवरों का शूटिंग करने गया था वहाँ सवा सौ मील के क्षेत्र में एक साल के भीतर हाथियों ने चार बनेचरों को कुचल दिया था और एक शेर ने जंगलात के एक कर्मचारी को चबा लिया था। एक भालू ने एक रेंजर का चेहरा नोच लिया था। एक शेर ने एक शेर को ही खा लिया था। एक शेर ने एक भालू की जान ले ली थी। इनके अलावा छोटी-मोटी घटनाओं की तो गिनती ही क्या ?

Students' Corner

ANSWER MAN:

Q. Are there any wild cheetahs left in India? If so, where?

A. The cheetah may be presumed to have become extinct in India in the wild state, though only a few decades ago, a female was shot by a misguided sportsman, possibly the last survivor. Domesticated cheetahs are still kept by some individuals in Gujarat, Rajasthan and Madhya Pradesh, and even now may be used for hunting as they were in the old days. In Africa, they are still abundant.

Q. How many animals and birds are killed in India each year, species-wise?

A. A good question, but as far as we know, only a few states maintain records of the numbers killed, and this too can be done only for those shot legitimately by permit-holders. Of poaching, there is no record, evidently! And statistics are not readily available. For U.P., you can write to the Chief Wild Life Warden, Lucknow.

Q. Is there any evidence to support the legend of the Himalayan Abominable Snowman?

A. The law considers a man innocent till he is proved guilty, but scientists, Robert Ardrey says in "The African Genesis", consider a theory or a rumour unproven till facts can be produced to show the truth of it. Thus, there is no shred of objective evidence in favour of the Abominable Snowman, but, yet, there is every possibility that a creature, either bear-like or possibly even a hominid, does exist in the high elevations of the Himalayan ranges and elsewhere. We publish below a report from California, supported by photographs which we cannot reproduce, which claims the existence of a similar legendary creature on the West Coast of the U.S.A.:

Excerpted from National Wild Life, 1968: Dirk Kirkpatrick, Executive Editor: Roger Patterson has filmed in colour the legendary Big-Foot, on the 20th October, 1967, at Bluff Creek, north of Eureka, California. It shows a tall, hairy creature, less human than ape-like, with long dangling arms, walking away from the camera, but looking towards it. Called Sasquatch locally, it was in the news even 150 years ago, but proof was lacking. Some people have doubted the authenticity of the photographs of Patterson, but they appear credible alright. The Pacific Coast Indians believe in him.

Dense and rugged country, overgrown with vegetation, not susceptible to easy visibility, it can only be seen, perhaps, by aerial reconnaissance. Hunters claim to have seen it, and one says he shot it but could not recover it. Others, that they could not bring themselves to

fire at such a human target. Near Taba Islet, Albert Ostman claims to have been kidnapped by a family of Big-Foot. Scientists are seriously examining the evidence, and feel the Big-Foot may be similar to Java or Pekin Man, a leftover or relic of evolution. As the editor says, either it is an ape-man or a man in a very good ape-suit!

Q. How many white tigers are there in India and where?

A. White tigers are albinos, but can be reared and bred. Several generations of white tigers have been bred in the Delhi zoo, though some of the cubs turn out normal. There is no definitive count, but there must be over twenty in captivity in various zoos.

Q. To what height above sea level do tigers live?

A. Corbett shot his Muktesar man-eating tigress at over seven thousand feet, and a tiger was shot only a thousand feet below the 9,973-foot-high peak of Nag Tibba. In Mansiari, we saw a tiger's pug-marks at nearly ten thousand feet above sea level, possibly the highest ever seen, but there may be tigers visiting even higher altitudes in summer.

Q. How many ibex are left in India?

A. Not many, but no census or even estimate has ever been attempted, and with good reason, for the ibex inhabits difficult ground, where jeep-restricted conservationists cannot go. A very rough working figure would be between two thousand and twenty thousand!

Q. Where are there the most elephants in India?

A. Assam has probably the largest numbers, but it is in Orissa and Uttar Pradesh that there are too many to be supported by the limited forest area.

Reviews

Panther on the Prowl: By M.D. Chaturvedi (National Book Trust, India: Rs. 3.25, 1969.)

While the lion figures in legends and fables all over the world, and the tiger is honoured in the seals at Mohenjodaro, the shy panther or leopard has attracted little notice through the ages. The lion mounts guard over ancient Egyptian tombs, Indian temples and contemporary heraldic crests and blazons, and is mentioned in the Aryan epics. The tiger is used in the Buddhist symbolism, but only the Greeks used the panther. Little enough is known of this retiring feline predator, apart from what can be gleaned from sporting books, of Norah Burke's "Eleven Leopards" or James Temple's "Leopard of the Hills".

It is, thus, even more useful to have the late M.D. Chaturvedi's posthumous publication, "Panther on the Prowl", revealing the colourful mask and the graceful gait and ways of life of the panther. Apart from the habitat, habits and distribution, Mr. Chaturvedi, in a personal and anecdotal fashion which makes good reading, solves the many riddles of the panther's life. Questions about the difference between panther and leopard, still often asked by schoolboys and laymen, are answered thoroughly, as are the phenomena of melanism explained, that lead to black panthers. His role in the balance of nature, often misunderstood is clearly explained, and his enemies and status delineated.

To illustrate the panther's stealth, Mr. Chaturvedi draws from his own experience, of how a panther removed a kill from under the leaves with which the author, one time Inspector General of Forests of India, had had it covered, without even disturbing the leaves!

Young and old alike, sportsmen and naturalists and conservationists, will find this an enthralling book. Illustrated with photographs and sketches, priced at Rs. 3.25, full of humour and insight and experience, it is a wonderful little book of under a hundred pages. On reading it, one wishes once again that the author had had a few more years with us to recount some more of his stories and tell us more of his long years of forest-learning. With characteristic generosity, the late M.D. Chaturvedi donated all royalties from this book to the Wild Life Preservation Society of India, before his death.

A. Chandola.

*

*

*

*

Serengeti Shall Not Die: By Dr. Bernard Grzimek (Film by Astral Motion Pictures)

Kilimanjaro's snows are synonymous with equatorial hunting adventure. And the Serengeti has always been the Mecca of the hunter. The baked volcanic plains which burst

seasonally into lush grasses and thundering herds that graze thereon are familiar to all. It took the screening of Dr. Bernard and the late Michael Grzimek's memorable film, "Serengeti Shall Not Die" to bring it all to life in a peculiarly poignant and exciting manner.

Financed by the proceeds from their first foray into the world of the 16 mm amateur conservation film, "No Room For Wild Animals", the Grzimeks set about seeking answers to the riddle of the great seasonal migrations of zebra and giraffe and wild-beast, gnu and gazelle, duiker and ducks, lions and impalas, and all their associates and hangers-on who appear and disappear on the Serengeti each year. They wished to define boundaries to the National Park to keep in it all areas visited by the game populations in their annual life-cycle; to keep the Masai and the poachers, securely, without its confines.

Flying their 'Ndegge', the one-eyed bird, the zebra monoplane, they transected the Serengeti to complete the first-ever visual count of the game populations; they further tagged and dyed and banded, and then followed the movements of the vast congregations. Their discovery that the new boundaries proposed for the park would ruin the chances of survival of these last African concentrations of wildlife by leaving out the essential plant-food areas led the enlightened Nyerere-Government of Tanzania a decade later, with American funds, to recast the boundaries of the Serengeti to meet ecological needs.

Michael, the accident-prone, dashing, dare-devil son who finally crashes to his death when a griffon vulture bends his right wing on a flight to Camp, was the plant-expert and their combined findings point the way to the kind of ecological research needing to be done on Indian wildlife resources also. But where are the enthusiastic foresters, zoologists and wild life people, where the conservationists? Most important, where are the resources? We are a poor people, and our foresters give out timber-contracts, our zoologists study the love-life of mosquitoes, and our able workers are hamstrung by lack of funds.

The Grzimeks had a team of photographers who have done fair justice to the Serengeti... the vast herds, the prides of lions, the Masai, actual birth-scenes of gazelle.....And also remarkable shots of the gorges of the East African rift valleys, including two of the Olduvai ('special sisal') gorge, where rest the earliest known remains of primitive 'Homo habilis' first discovered by Professor Reck and Dr. Leakey. Only appropriate that in the volcanic sediments of the Olduvai, where we find fossils of antlered giraffes, pygmy horses, four-tusked elephants of days gone by; that here should be found, too, with remains of the first tool-using anthropoid-hominoids, the last great concentrations of game ungulates and predators in the world. For here life began, dark, primitive, strong, African genesis, and here might well

life finally survive and end, if scientific-tool-using man in Europe and the Americas has his way.

What thrilled us most was the scene of catching zebras by the tail, and the subsequent tagging. There are thrills and spills enough for the most blood-thirsty of us, and conservation and ecology for the most scientific.

One wonders why such films cannot be produced on India's National Parks and Sanctuaries.

(Review by boys of the Doon School Wildlife Society).

*

*

*

*

AFRICAN WILDLIFE

Compiled by Franz A. Roedelberger and Vera Groschoff. Translated by Nieter O'Leary and Pamela Paulet. 24 full-page photographs in full colour, and over 250 in black-and-white. Published by CONSTABLE & CO. LTD., 10-12 Orange Street, London WC-2, 45 s net.

The wildlife of Africa is one of its greatest attractions, and in this book a remarkable record of the fauna of this vast continent is presented in 274 outstanding colour and black-and-white photographs. Exciting action pictures of birds and animals at their normal pursuits, taken in their natural habitats vividly portray the drama and wonder of life in the deserts, jungles, mountains, and plains, and the text translated by Nieter O'Leary and Pamela Paulet describes in intriguing detail the habits and characteristics of the different species.

The destruction caused by expanding settlement and the depredations of hunters has recently brought about increasing efforts to conserve African wildlife, and throughout the continent, amid sweeping changes, dramatic conservation battles are being fought. In the unending struggle to preserve as much of the entireness of the earth as possible, books like this magnificent collection of photographs—selected by Franz A. Roedelberger and Vera I. Groschoff from the work of seventy wildlife artists—play a real and an important part. They bring to life a far-off fauna. They show us the variety and action and beauty not only of the great beasts but of the colourful birds and striking insects, the reptiles and fish and amphibians, that make up the living volume of Africa's infinitely varied creatures. Keeping the pages of that volume intact is a task for both the present and the future. Everyone who reads this book will feel an added interest in the outcome.

खूंखार बघेरों का द्वन्द दर्शन

वीरेन्द्र सहाय सक्सेना, आई०एफ०एस०

मण्डल वन अधिकारी, भरतपुर

सरिस्का वन्य जीव विहार संसार की सुविख्यात सैन्चुरियों में से है। अरावली पहाड़ों के घने वनों में अलवर से जयपुर की ओर ३५ किलोमीटर दूर राष्ट्रीय मार्ग नं० ८ पर स्थित, यह पशु विहार विदेशी पर्यटकों के लिए विशेष आकर्षण का केन्द्र है। यहाँ गर्मी की ऋतु में शेर (टाइगर) देखने वालों की इतनी भरमार रहती है कि इन दिनों तीन रेस्ट हाउस होते हुए भी स्थानाभाव के कारण पर्यटकों से क्षमा याचना करनी पड़ती है।

सरिस्का रेस्ट हाउस से १४ अप्रैल, १९६६ को ६.१५ बजे जीप में 'स्पॉट लाइट' एवं दूरबीन आदि लेकर श्री जयसिंह गैंग बाईन ने खुली जीप रवाना की। जीप में लेखक के अतिरिक्त श्री कानेतकर, डाईरेक्टर जनरल, सैन्ट्रल रिजर्व पुलिस, श्री बौडा, मुख्य वन संरक्षक, राजस्थान, श्री तेजकुमार जिलाधीश अलवर, ले० कर्नल कर्नल सिंह तथा रेंज ऑफिसर श्री सेनी थे।

लगभग १७ किलोमीटर सरिस्का पशु विहार में नील गायों, जंगली सूअरों, चीतलों, साम्भरों एवं लंगूरों के झुण्ड देखते हुए चले। श्री सेनी ने कुछ लंगूरों की खांक-खांक की विचित्र भयातुर आवाज सुनी। जो कि किसी खूंखार पशु के आसपास की होने की द्योतक होती हैं। अतः उसने जीप धीमी करवाई और पुल पर रुकवा दी गई फिर उस ओर देखा जिस ओर पेड़ों पर चढ़े लंगूर देख रहे थे। लंगूरियाँ डर के मारे अपने छोटे-छोटे बच्चों को अपने पेट से चिपकाये, विचलित हो, पेड़ों पर शोर करती हुई इस डाली से उस डाली पर कूद रही थीं। उन सब लंगूरों की निगाह उसी पहाड़ी की तलहटी में थी जहाँ उनका भक्षक प्राणी उपस्थित था। शीघ्र ही श्री सेनी ने शू-शू करते हुए इशारा किया कि वो रहा पैंथर-बघेरा-तेन्दुआ। हमारी सबकी आँखें भी उस ओर टिक गईं। वह सुनहरी धरती पर काले-काले गोल से निशान वाली बघेरिन थी। वह चलने लगी और लगभग १० मीटर दूरी पर जाकर वन में ओझल हो गई। किन्तु लंगूरों की आवाज अभी आ रही थी और एक वृक्ष पर बैठा हुआ उल्लू भी चट्टान वाली पहाड़ी पर आँख जमाये बैठा था। खैर जब यह बघेरिन दूर चली गई तो पुल पर से जीप ऊपर चढ़ाई गई। जीप चढ़ाई पर मुश्किल से २० मीटर ही गई होगी कि सेनी ने फिर गाड़ी रुकवा दी और पहाड़ी की ओर जहाँ दो धोक वृक्ष की झाड़ियाँ चट्टान पर उग रही थी, इशारा किया। हमारी आँखें वहाँ कुछ ढूँढ़ने लगी। हमने देखा कि वहाँ एक हृष्टपुष्ट पशु विराजमान है। अन्धेरा हो चला था और ऐसा लगा कि वह शेर है पर दूरबीन से देखने पर यह भ्रम दूर हो गया। ४-५ मिनट हम लोग उसे निहारते रहे। उसका मुँह पुल वाले नाले की तरफ था। जहाँ हमने बघेरिन देखी थी। बघेरा अपने पिछले दोनों पैर पसारते हुए आगे की टाँगों पर बैठा हुआ शान से पूँछ को, थोड़ा सा उठाकर, मोड़े हुए था। लंगूरों के साथ अब 'नाइटजार्' पक्षी की भी आवाज सुनाई पड़ने लगी थी। थोड़ी देर में हमने देखा कि यह बड़ा पैंथर (बड़का) जो लगभग ढाई मीटर का होगा चट्टानों पर से पूँछ उठाकर, छलाँग मारकर कूदा पर फिर नजर नहीं आ सका। हमने आगे पाँड़पोल की तरफ बढ़ने की सोची। पर पता नहीं सेनी के तेज कानों ने और तीव्र दृष्टि ने क्या सुना और क्या देखा कि उसने 'स्पॉट लाइट' लगी हुई जीप को 'बैक गीयर' में पीछे लिवाया और वहीं २०-२२ मीटर नीचे नाले पर बने पुल पर खड़ा करवा दिया। उसने 'स्पॉट लाइट' से पुनः दो तेज चमकती

हुई आँखें देख ली थी। 'स्पॉट लाइट' की रोशनी में हमने देखा कि एक बघेरा हमसे १० मीटर दूर पर नाले में पत्थर पर बैठा पानी पीने का प्रयास कर रहा था। रोशनी पड़ने पर वह थोड़ा सा चमका और नाले से ऊपर भाड़ियों में होते हुए चढ़ा। वह कोई ६-७ मीटर ही ऊँचा चढ़ा होगा कि गुराने की आवाज आई। आवाज आते ही ज्यों ही सैनी ने 'स्पॉट लाइट' उस ओर डाली तो हम लोग स्तब्ध हो गये। दो बघेरों के गुराने की आवाज आई और बड़े बघेरे ने छलांग मार कर छोटे बघेरे को धर दबोचा। छोटा बघेरा वो ही था जो नाले से ऊपर गया था और बड़ा तेन्दुआ वही था जो ऊपर चट्टान से उतर कर आया था। छोटे बघेरे (छुटका) ने फुर्ती से पैतरा बदला और पास ही की एक बड़ी चट्टान के पीछे आ गया। दोनों बघेरे गुरा रहे थे और देखते ही देखते दोनों गुत्थम-गुत्था हो गये। उनकी दहाड़ से सारी घाटी में शान्ति छा गई। पशु पक्षियों की आवाजें भी आनी बन्द हो गई। अन्धेरा हो गया था और लगभग ७-३० बज चुके थे। गुत्थम-गुत्था हुए छुटका और बड़का पहाड़ी से लुढ़कते हुए नीचे नाले में गिरे। अब बड़का छुटके के ऊपर था और जहाँ बड़का अपनी दहाड़ से विजय घोष कर रहा था। वहाँ छुटका दाँत दिखाकर गिड़गिड़ा रहा था। जब छुटका छूटकर भागने लगा तो बड़के ने एक चाँटा छुटके के लगाया पर छुटका दुम दबाकर पहाड़ी पर चढ़ गया। बड़का वहीं खड़ा हो नाले की ओर देख रहा था। जहाँ हमने 'स्पॉट लाइट' की रोशनी में देखा कि एक बघेरिन खड़ी थी और बड़के से मानो कह रही हो कि अभी तुम्हारी मर्दानगी में कसर है। अस्तु बड़का भी पहाड़ी पर चढ़ा और लगभग ६-७ मीटर चढ़ा होगा कि पहले वाली चट्टान के पीछे से फिर दो बघेरों की लड़ने की आवाज आने लगी। तुरन्त 'स्पॉट लाइट' डाली गई और देखा कि बड़का और छुटका फिर जूझ रहे हैं। इनके युद्ध को देखकर लगता था कि इस युद्ध का निर्णय तो एक की मृत्यु ही करेगी। अतः गेम वार्डन ने उन्हें आवाज देकर विचलित करने की कोशिश की। किन्तु मतवाले बड़के पर इसका कोई असर नहीं हुआ और उनका मल्लयुद्ध चलता ही रहा। रात्रि की शान्ति को इस कोहराम ने भंग कर दिया था। एक दूसरे से लिपटे हुए, गुराते हुए, दहाड़ते हुए, वे पहाड़ी से फिर लुढ़कते हुए वहीं नाले में आ गिरे। इस बार हमने देखा कि छुटके को काफी पसीना सा आ रहा था और थक गया था। स्पष्टतः वह अपने को पराजित मान रहा था पर बड़का अकड़े ही जा रहा था और छुटका तो अब बड़के के वारों से अपना बचाव कर रहा था। ये दशा देखकर हमने जीप का हॉर्न लगाकर आवाज से उनको चमकाया। बड़के ने हमारी ओर ऐसे देखा कि जैसे हम से वह अप्रसन्न है और बस चले तो हमारा भी छुटके की तरह का हाल कर दे। इसी बीच छुटके ने मौका पाया और अपनी जान बचा भाग खड़ा हुआ। हम उसे देख भी नहीं पाये कि किधर गया। बड़के ने देखा कि छुटका नहीं है तो वह पुनः भागता हुआ पहाड़ी पर उसी चट्टान के पीछे गया जहाँ उसने पहले दो बार छुटके को पछाड़ा था। पर अब छुटका यहाँ कहाँ। बड़का क्रुद होकर दहाड़ता रहा। गुराता रहा और अपने विजयी होने का नाद करता रहा। अब की बार बघेरिन भी नज़र नहीं आई। पता नहीं वह क्यों चली गई थी। लंगूर अब चुप हो गये थे। शायद भक्षक पशु दूर जा चुके थे।

शाम के ७.५० हो चुके थे और हम शेर की तलाश में आगे बढ़ गये। पर जब हम ८.३० बजे तक रैस्ट हाउस पहुँचे तब तक शेर नहीं दिखा। वैसे सरिस्का में इस ऋतु में जंगल के राजा शेर का दर्शन निश्चित सा ही है। पर हमको इसका अफसोस नहीं था क्योंकि जो हमने आज प्रकृति के इन गुलदार-बघेरे-तेन्दुओं का विकराल युद्ध देखा, वह अन्यत्र दिखना दुर्लभ था। छुटके बड़के की गुराने की व दहाड़ने की आवाज आज भी कानों में पहुँच कर दिल को दहला देती है और युद्ध के कारण को सोचते हुए लगता है कि मादा के लिए, संसार के मानवों में ही नहीं पशुओं में भी युद्ध छिड़ सकता है।

खूंखार बघेरों का द्वन्द दर्शन

वीरेन्द्र सहाय सबसेना, आई०एफ०एस०

मण्डल वन अधिकारी, भरतपुर

सरिस्का वन्य जीव विहार संसार की सुविख्यात सैन्चुरियों में से है। अरावली पहाड़ों के घने वनों में अलवर से जयपुर की ओर ३५ किलोमीटर दूर राष्ट्रीय मार्ग नं० ८ पर स्थित, यह पशु विहार विदेशी पर्यटकों के लिए विशेष आकर्षण का केन्द्र है। यहाँ गर्मी की ऋतु में शेर (टाइगर) देखने वालों की इतनी भरमार रहती है कि इन दिनों तीन रेस्ट हाउस होते हुए भी स्थानाभाव के कारण पर्यटकों से क्षमा याचना करनी पड़ती है।

सरिस्का रेस्ट हाउस से १४ अप्रैल, १९६६ को ६.१५ बजे जीप में 'स्पॉट लाइट' एवं दूरबीन आदि लेकर श्री जयसिंह गैम वार्डन ने खुली जीप रवाना की। जीप में लेखक के अतिरिक्त श्री कानेतकर, ड्राईरेक्टर जनरल, सैन्ट्रल रिजर्व पुलिस, श्री बौडा, मुख्य वन संरक्षक, राजस्थान, श्री तेजकुमार जिलाधीश अलवर, ले० कर्नल कर्नल सिंह तथा रेंज ऑफिसर श्री सेनी थे।

लगभग १७ किलोमीटर सरिस्का पशु विहार में नील गायों, जंगली सूअरों, चीतलों, साम्भरों एवं लंगूरों के झुण्ड देखते हुए चले। श्री सेनी ने कुछ लंगूरों की खांक-खांक की विचित्र भयातुर आवाज सुनी। जो कि किसी खूंखार पशु के आसपास की होने की द्योतक होती है। अतः उसने जीप धीमी करवाई और पुल पर रुकवा दी गई फिर उस ओर देखा जिस ओर पेड़ों पर चढ़े लंगूर देख रहे थे। लंगूरियाँ डर के मारे अपने छोटे-छोटे बच्चों को अपने पेट से चिपकाये, विचलित हो, पेड़ों पर शोर करती हुई इस डाली से उस डाली पर कूद रही थीं। उन सब लंगूरों की निगाह उसी पहाड़ी की तलहटी में थी जहाँ उनका भक्षक प्राणी उपस्थित था। शीघ्र ही श्री सेनी ने शू-शू करते हुए इशारा किया कि वो रहा पेंथर-बघेरा-लेन्दुआ। हमारी सबकी आँखें भी उस ओर टिक गई। वह सुनहरी धरती पर काले-काले गोल से निशान वाली बघेरिन थी। वह चलने लगी और लगभग १० मीटर दूरी पर जाकर वन में ओझल हो गई। किन्तु लंगूरों की आवाज अभी आ रही थी और एक वृक्ष पर बैठा हुआ उल्लू भी चट्टान वाली पहाड़ी पर आँख जमाये बैठा था। खैर जब यह बघेरिन दूर चली गई तो पुल पर से जीप ऊपर चढ़ाई गई। जीप चढ़ाई पर मुश्किल से २० मीटर ही गई होगी कि सेनी ने फिर गाड़ी रुकवा दी और पहाड़ी की ओर जहाँ दो धोक वृक्ष की झाड़ियाँ चट्टान पर उग रही थी, इशारा किया। हमारी आँखें वहाँ कुछ दूँदने लगी। हमने देखा कि वहाँ एक हृष्टपुष्ट पशु विराजमान है। अन्धेरा हो चला था और ऐसा लगा कि वह शेर है पर दूरबीन से देखने पर यह भ्रम दूर हो गया। ४-५ मिनट हम लोग उसे निहारते रहे। उसका मुँह पुल वाले नाले की तरफ था। जहाँ हमने बघेरिन देखी थी। बघेरा अपने पिछले दोनों पैर पसारते हुए आगे की टाँगों पर बैठा हुआ शान से पूँछ को, थोड़ा सा उठाकर, मोड़ते हुए था। लंगूरों के साथ अब 'नाइटजार्' पक्षी की भी आवाज सुनाई पड़ने लगी थी। थोड़ी देर में हमने देखा कि यह बड़ा पेंथर (बड़का) जो लगभग ढाई मीटर का होगा चट्टानों पर से पूँछ उठाकर, छलाँग मारकर कूदा पर फिर नजर नहीं आ सका। हमने आगे पाँड़पोल की तरफ बढ़ने की सोची। पर पता नहीं सेनी के तेज कानों ने और तीव्र दृष्टि ने क्या सुना और क्या देखा कि उसने 'स्पॉट लाइट' लगी हुई जीप को 'बैक गीयर' में पीछे लिवाया और वहीं २०-२२ मीटर नीचे नाले पर बने पुल पर खड़ा करवा दिया। उसने 'स्पॉट लाइट' से पुनः दो तेज चमकती

हुई आंखें देख ली थी। 'स्पॉट लाइट' की रोशनी में हमने देखा कि एक बघेरा हमसे १० मीटर दूर पर नाले में पत्थर पर बैठा पानी पीने का प्रयास कर रहा था। रोशनी पड़ने पर वह थोड़ा सा चमका और नाले से ऊपर भाड़ियों में होते हुए चढ़ा। वह कोई ६-७ मीटर ही ऊँचा चढ़ा होगा कि गुरानि की आवाज आई। आवाज आते ही ज्यों ही सैनी ने 'स्पॉट लाइट' उस ओर डाली तो हम लोग स्तब्ध हो गये। दो बघेरों के गुरानि की आवाज आई और बड़े बघेरे ने छलांग मार कर छोटे बघेरे को धर दबोचा। छोटा बघेरा वो ही था जो नाले से ऊपर गया था और बड़ा तेन्दुआ वही था जो ऊपर चट्टान से उतर कर आया था। छोटे बघेरे (छुटका) ने फुर्ती से पैतरा बदला और पास ही की एक बड़ी चट्टान के पीछे आ गया। दोनों बघेरे गुरा रहे थे और देखते ही देखते दोनों गुत्थम-गुत्था हो गये। उनकी दहाड़ से सारी घाटी में शान्ति छा गई। पशु पक्षियों की आवाजें भी आनी बन्द हो गई। अन्धेरा हो गया था और लगभग ७-३० बज चुके थे। गुत्थम-गुत्था हुए छुटका और बड़का पहाड़ी से लुढ़कते हुए नीचे नाले में गिरे। अब बड़का छुटके के ऊपर था और जहाँ बड़का अपनी दहाड़ से विजय घोष कर रहा था। वहाँ छुटका दाँत दिखाकर गिड़गिड़ा रहा था। जब छुटका छूटकर भागने लगा तो बड़के ने एक चाँटा छुटके के लगाया पर छुटका दम दबाकर पहाड़ी पर चढ़ गया। बड़का वहीं खड़ा हो नाले की ओर देख रहा था। जहाँ हमने 'स्पॉट लाइट' की रोशनी में देखा कि एक बघेरिन खड़ी थी और बड़के से मानो कह रही हो कि अभी तुम्हारी मर्दानगी में कसर है। अस्तु बड़का भी पहाड़ी पर चढ़ा और लगभग ६-७ मीटर चढ़ा होगा कि पहले वाली चट्टान के पीछे से फिर दो बघेरों की लड़ने की आवाज आने लगी। तुरन्त 'स्पॉट लाइट' डाली गई और देखा कि बड़का और छुटका फिर जुझ रहे हैं। इनके युद्ध को देखकर लगता था कि इस युद्ध का निर्णय तो एक की मृत्यु ही करेगी। अतः गेम वार्डन ने उन्हें आवाज देकर विचलित करने की कोशिश की। किन्तु मतवाले बड़के पर इसका कोई असर नहीं हुआ और उनका मल्लयुद्ध चलता ही रहा। रात्रि की शान्ति को इस कोहराम ने भंग कर दिया था। एक दूसरे से लिपटे हुए, गुराते हुए, दहाड़ते हुए, वे पहाड़ी से फिर लुढ़कते हुए वहीं नाले में आ गिरे। इस बार हमने देखा कि छुटके को काफी पसीना सा आ रहा था और थक गया था। स्पष्टतः वह अपने को पराजित मान रहा था पर बड़का अकड़े ही जा रहा था और छुटका तो अब बड़के के वारों से अपना बचाव कर रहा था। ये दशा देखकर हमने जीप को हॉर्न लगाकर आवाज से उनको चमकाया। बड़के ने हमारी ओर ऐसे देखा कि जैसे हम से वह अप्रसन्न है और बस चले तो हमारा भी छुटके की तरह का हाल कर दे। इसी बीच छुटके ने मौका पाया और अपनी जान बचा भाग खड़ा हुआ। हम उसे देख भी नहीं पाये कि किधर गया। बड़के ने देखा कि छुटका नहीं है तो वह पुनः भागता हुआ पहाड़ी पर उसी चट्टान के पीछे गया जहाँ उसने पहले दो बार छुटके को पछाड़ा था। पर अब छुटका यहाँ कहाँ। बड़का क्रुद होकर दहाड़ता रहा। गुराता रहा और अपने विजयी होने का नाद करता रहा। अब की बार बघेरिन भी नज़र नहीं आई। पता नहीं वह क्यों चली गई थी। लंगूर अब चुप हो गये थे। शायद भक्षक पशु दूर जा चुके थे।

शाम के ७.५० हो चुके थे और हम शेर की तलाश में आगे बढ़ गये। पर जब हम ८.३० बजे तक रैस्ट हाउस पहुँचे तब तक शेर नहीं दिखा। वैसे सरिस्का में इस ऋतु में जंगल के राजा शेर का दर्शन निश्चित सा ही है। पर हमको इसका अफसोस नहीं था क्योंकि जो हमने आज प्रकृति के इन गुलदार-बघेरे-तेन्दुओं का विकराल युद्ध देखा, वह अन्यत्र दिखना दुर्लभ था। छुटके बड़के की गुरानि की व दहाड़ने की आवाज आज भी कानों में पट्टं कर दिल को दहला देती है और युद्ध के कारण को सोचते हुए लगता है कि मादा के लिए, संसार के मानवों में ही नहीं पशुओं में भी युद्ध छिड़ सकता है।

साथ ही मन में यह विचार दढ़ हो गया कि सरिस्का पशु विहार (४३२ वर्ग किलोमीटर) में वन्य प्राणी काफी स्वच्छन्दता से विचरण करते हैं। बघेरो, साम्भरो, नील गायों, चीतलों, चौसिधों, सेई, खरगोश, शियागोशे के पास जाकर हमको निशंक देखने से हमें यह भी आभास हुआ कि पुरातन काल में ऋषियों के आश्रमों में जो वन्य पशुओं के लिए अभयोरण्य होता था वह इस सरिस्का सेन्चुरी में आज भी है।

Library

The following books and publications were added to the Society Library. The Society thanks the donors and requests members to donate more books or money to make the library more useful.

No.	Name of Book	Remarks
111	The Land and Wild Life of Tropical Asia (Life Nature Library)	Donated by Shri Pratap Singh of Gurukula Kangri, Hardwar. Complimentary
112	Quest of the Snow Leopard	
113	Vanraj ke Raj Me (Hindi)	
114	Wild Life Bulletin No. 1 by the Indian Board for Wild Life	
115	Golden Jubilee Souvenir—1912-62 of Southern Forest Rangers' College, Coimbatore	
116	Maharashtra State Forest Centenary Souvenir, 1847-1962	-do-
117	Film Catalogue, 1964, (U.P. Forest Department)	-do-
118	Protected Species in U.P.	-do-
119	Pashu aur Pakshi (Hindi)	-do-
120	-do-	-do-
121	Hathiyon ki Khoj Me (Hindi)	Donated by the Author Mr. Biraj, through Mr. Pratap Singh
122	Animal Stories for the Young of all ages	Donated by the Animal Welfare Board, Madras-20
123	Bharatur Banaria Janu (In Assamese)	Donated by Mr. P.C. Gogoi
124	Jungle By-Ways in India	Purchased
125	The Minds and Manners of Wild Animals	-do-
126	Musings of an Old Shikari	-do-
127	With Gun and Rod in India (1956 Edition)	Donated by Mr. M.D. Chaturvedi

No.	Name of Book	Remarks
128	Narabakshi Baghon ka Shikar (In Hindi) ...	Purchased
129	Bharat ke Pakshi (in Hindi) ...	-do-
130	Narabakshi Baghon ke Shikar (in Hindi) ...	Donated by Shri B.N. Singh, Author
131	The Sea (Life Nature Library) ...	Purchased
132	The Tiger Roars by Kenneth Anderson ...	-do-
133	On the Beauties of Nature, the Forests and Wild Life ...	Complimentary
134	Towards a new Relationship of Man and Nature in Temperate Lands—Part II—Town and Country Planning Problem (I.U.C.N. Pamphlet No. 8) ...	-do-
135	Tryst with Tigers ...	Purchased
136	The Illustrated Weekly of India, 1.10.67, Wild Life Issue ...	Purchased
137	Eley Game Advisory Service Booklet No. 2 Game and Shooting Crops ...	Complimentary
138	" " " " " No. 4, Partridge Rearing ...	-do-
139	" " " " " No. 5, Pheasant Egg Production ...	-do-
140	" " " " " No. 8, Pheasant Rearing ...	-do-
141	" " " " " No. 9, How to Distinguish sex and age in Birds ...	-do-
142	" " " " " No. 11a, Hatching Game Birds' Eggs under Broodies ...	-do-
143	" " " " " No. 11b, Hatching Game Birds' Eggs in Incubators ...	-do-
144	" " " " " No. 14, Feeding and Management of Game in Winter ...	-do-
145	" " " " " No. 17, Enemies of Game ...	-do-
146	" " " " " No. 19, Grey Squirrels ...	-do-
147	" " " " " No. 20, Game on the Farm ...	-do-
148	Eley Game Advisory Service Annual Report, 1962-63 ...	-do-
149	Eley Game Advisory Service—Annual Report for 1963-64 ...	-do-
150	Eley Game Advisory Service—Annual Report for 1964-65 ...	-do-
151	The Deer and the Tiger by George B. Schaller ...	Purchased
152	Towards a new Relationship of Man and Nature in Temperate Lands, Part III ...	Complimentary
153	Shikar ki Romanchkari Sachhi Gathain (in Hindi) ...	Purchased

साथ ही मन में यह विचार दृढ़ हो गया कि सरिस्का पशु विहार (४३२ वर्ग किलोमीटर) में वन्य प्राणी काफी स्वच्छन्दता से विचरण करते हैं। बघेरी, साम्भरी, नील गायों, चीतलों, चौसिधों, सेई, खरगोश, शियामोशे के पास जाकर हमको निशंक देखने से हमें यह भी आभास हुआ कि पुरातन काल में ऋषियों के आश्रमों में जो वन्य पशुओं के लिए अभयोरण्य होता था वह इस सरिस्का सेन्चूरी में आज भी है।

Library

The following books and publications were added to the Society Library. The Society thanks the donors and requests members to donate more books or money to make the library more useful.

No.	Name of Book	Remarks
111	The Land and Wild Life of Tropical Asia (Life Nature Library)	Donated by Shri Pratap Singh of Gurukula Kangri, Hardwar. Complimentary
112	Quest of the Snow Leopard	
113	Vanraj ke Raj Me (Hindi)	
114	Wild Life Bulletin No. 1 by the Indian Board for Wild Life	
115	Golden Jubilee Souvenir—1912-62 of Southern Forest Rangers' College, Coimbatore	
116	Maharashtra State Forest Centenary Souvenir, 1847-1962	-do-
117	Film Catalogue, 1964, (U.P. Forest Department)	-do-
118	Protected Species in U.P.	-do-
119	Pashu aur Pakshi (Hindi)	-do-
120	-do-	-do-
121	Hathiyon ki Khoj Me (Hindi)	Donated by the Author Mr. Biraj, through Mr. Pratap Singh
122	Animal Stories for the Young of all ages	Donated by the Animal Welfare Board, Madras-20
123	Bharatur Banaria Janu (In Assamese)	Donated by Mr. P.C. Gogoi
124	Jungle By-Ways in India	Purchased
125	The Minds and Manners of Wild Animals	-do-
126	Musings of an Old Shikari	-do-
127	With Gun and Rod in India (1956 Edition)	Donated by Mr. M.D. Chaturvedi

No.	Name of Book	Remarks
128	Narabakshi Baghon ka Shikar (In Hindi) ...	Purchased
129	Bharat ke Pakshi (in Hindi) ...	-do-
130	Narabakshi Baghon ke Shikar (in Hindi) ...	Donated by Shri B.N. Singh, Author
131	The Sea (Life Nature Library) ...	Purchased
132	The Tiger Roars by Kenneth Anderson ...	-do-
133	On the Beauties of Nature, the Forests and Wild Life ...	Complimentary
134	Towards a new Relationship of Man and Nature in Temperate Lands—Part II—Town and Country Planning Problem (I.U.C.N. Pamphlet No. 8) ...	-do-
135	Tryst with Tigers ...	Purchased
136	The Illustrated Weekly of India, 1.10.67, Wild Life Issue ...	Purchased
137	Eley Game Advisory Service Booklet No. 2 Game and Shooting Crops ...	Complimentary
138	„ „ „ „ „ „ No. 4, Partridge Rearing ...	-do-
139	„ „ „ „ „ „ No. 5, Pheasant Egg Production ...	-do-
140	„ „ „ „ „ „ No. 8, Pheasant Rearing ...	-do-
141	„ „ „ „ „ „ No. 9, How to Distinguish sex and age in Birds ...	-do-
142	„ „ „ „ „ „ No. 11a, Hatching Game Birds' Eggs under Broodies ...	-do-
143	„ „ „ „ „ „ No. 11b, Hatching Game Birds' Eggs in Incubators ...	-do-
144	„ „ „ „ „ „ No 14, Feeding and Management of Game in Winter ...	-do-
145	„ „ „ „ „ „ No. 17, Enemies of Game ...	-do-
146	„ „ „ „ „ „ No. 19, Grey Squirrels ...	-do-
147	„ „ „ „ „ „ No. 20, Game on the Farm ...	-do-
148	Eley Game Advisory Service Annual Report, 1962-63 ...	-do-
149	Eley Game Advisory Service—Annual Report for 1963-64 ...	-do-
150	Eley Game Advisory Service—Annual Report for 1964-65 ...	-do-
151	The Deer and the Tiger by George B. Schaller ...	Purchased
152	Towards a new Relationship of Man and Nature in Temperate Lands, Part III ...	Complimentary
153	Shikar ki Romanchkari Sachhi Gathain (in Hindi) ...	Purchased

No.	Name of Book	Remarks
154	A Field Study of the Red Jungle Fowl in North Central India ...	Complimentary
155	Towards a new Relationship of Man and Nature in Temperate Lands ...	-do-
156	Read—the Elephant Hunter	Donated by Mr. P.D. Stracey
157	The Tiger Roars ...	Complimentary
158	Relationship Between the Tsetse Fly and its Vertebrate Hosts -----	-do-
159	Hunter (Popular Library Series) ...	Purchased
160	'CHEETAL' bound copy, Vol. Nos. '8 and 9'	From the Society
161	'Singh Parivar' (in Hindi) ...	Donated by Mr. M.D. Chaturvedi
162	Shikar Tales by the Barrel, by Jit Roy ...	Complimentary
163	Conservation Education at the University Level (IUCN) ...	-do-
164	The Observers' Book of Wild Animals of the British Isles	Purchased
165	Birds—A Guide to the Birds of Great Britain and Europe ...	Purchased
166	The Land and Wild Life of Africa	Purchased
167	The Rifle in India ...	} Donated by Mr. S.C. Campbell, Saharanpur
168	Record Bags and Shooting Records ...	
169	Big Stuff ...	
170	Man against Man Eaters ...	
171	Marvels and Mysteries of Our Animal World ...	Purchased
172	Check List of Palaearctic and Indian Mammals, 1758-1946	Donated by Mr. E.P. Gee
173	The Last of the Wild ...	Purchased
174	Brochure containing the Summary of the Recommendations made by the I.B.W.L. and its Executive Committees at the meetings held in 1961-65 ...	Donated by Mr. M.D. Chaturvedi
175	A History of Fishes ...	Purchased
176	Fishes (Teach Yourself Series) ...	-do-
177	Wild Life Management in India (I.B.W.L. Pamphlet) ...	-do-
178	Conservation in Tropical South East Asia (I.U.C.N.) ...	Complimentary
179	The Point Calimere Sanctuary, Madras State, May 1967 ...	-do-
180	'Tigers'—The World of Animals Series ...	Donated by Mr. P.D. Stracey
181	Annual Review 1967-68—Eley Game Advisory Station ...	Complimentary
182	Index to I.U.C.N. Publications ...	-do-
183	Insects in the Literature of Kalidasa ...	Donated by Dr. C.S. Gupta, Author
184	Effect of Temperature on Oecophylla Smargdina Fabr. ...	-do-

No.	Name of Book	Remarks
185	Studies on the Ecology and Population Pattern of <i>Oecophylla Smargdina</i> Fabr. ...	.do.
186	Ecological Studies on <i>Camponotus Comprassus</i> (Fabr.) during Spring in Hardwar ...	.do.
187	The Biological Museum of Gurukula Kangri (A Short Introduction and History) ...	.do.
188	'Evolution' (Life Nature Library)	Purchased
189	Tree Tops by Jim Corbett ...	.do.
190	Behind the Lens in Tiger Land ...	.do.
191	Hunting Wild Life with Camera and Flash Light, Vol. I	Donated by Mrs. Leila Chaturvedi according to the wishes of her husband late Mr. M.D. Chaturvedi
192	Vol. II	
193	"Thirteen Years among the Wild Beasts of India	
194	Big Game Encounters	
195	Jungle Trails in Northern India	
196	Wild Animals in Central India	
197	India's Wild Life (1957 Edition)	
198	India's Wild Life (1963 Edition Revised)	
199	Wild Life Bulletin No. 1 (June 1965) by IBWL	
200	With Gun and Rod in India	
201	Wild Life Sanctuaries in India	Donated by Mrs. Leila Chaturvedi according to the wishes of her husband late Mr. M.D. Chaturvedi
202	The Personality of Animals	
203	'Aap Beethi' Shikar ke Rochak Anubhav (in Hindi)	
204	Bengt Berg — Meine Jagd Nach Dem Einhorn (in German)	
205	Dar Lammergeiler im Himalaja (in German)	
206	Die Seltsame Insel (in German)	
207	Tookern Der See der Wilden Schwane (in German)	
208	-do- -do-	
209	Farligt Stovilt	
210	Abu Markub (in German)	
211	-do-	Complimentary
212	Tiger and Mensch (in German)	
213	Die Liebesgeschichte Einer Wildgans (in German)	
214	Conservation Education and Training (I.U.C.N. Publ.) ...	
215	Conservation Education (New Series Paper No. 12, I.U.C.N.) ...	
216	Studies on the Population Structure of the Indian Red Ant. ...	Donated by Dr. C.S. Gupta
217	Shooting with Game and Gun Room Notes ...	Donated by Mr. S.C. Campbell, Saharanpur
218	Pocket Field Guide to Animal Tracks ...	Purchased
219	The Observer's Book of Freshwater Fishes	.do.
220	Ecology of the Red Jungle Fowl in Thailand and Malaya ...	Complimentary
221	Proceedings of Latin American Conference on Conservation	.do.

No.	Name of Book	Remarks
222	'Circus' Amusement of the Uncivilised ...	Donated by
223	Waterfowl Management of Small Areas ...	Mr. N.K. Jain
224	The Devil Birds of Ceylon ...	Complimentary
225	Govind Pashu Vihar ...	.do.
226	The Goral of Benog ...	.do.
227	The Musk Deer of the Himalayas ...	.do.
228	I.U.C.N. Bulletin, New Series, Vol. 2, No. 2 ...	.do.
229	I.U.C.N. Bulletin, New Series, Vol. 2, No. 2 ...	.do.
230	I.U.C.N. Bulletin, New Series, Vol. 2, No. 6 ...	.do.
231	I.U.C.N. Bulletin, New Series, Vol. 2, No. 8 ...	.do.

WORLD WILD LIFE FUND, Morges (Switzerland)

This is the Symbol of the World Wild Life Fund



A Giant Panda (Ailurpoda melanoleuca) has been chosen to symbolise the work of the Fund because it is one of the best-known and best-loved rare animals in the world, and because it owes its survival to the sort of careful conservation which all wild creatures deserve.

OBITUARY

Doctor Bains Prashad, D.Sc.; F.N.I.; F.A.S.; O.B.E. 1894-1969

With the passing away of Doctor Bains Prashad on 19th January, 1969 India has lost an administrator, a zoologist of international distinction and the wild life conservation movement a staunch and knowledgeable supporter. The Wild Life Preservation Society of India of which he was an honorary member and Vice-President from its very inception has lost one who gave willingly of his time and knowledge to the affairs of the Society. It was due to his persistent efforts that Cheetal received a token small recurring grant from the Government of India. He left behind his wife, two sons and a daughter and a large number of friends, admirers and acquaintances to mourn his loss.

"Doctor Bains Prashad, after receiving a master's degree in science from Punjab University, secured a doctorate from the same institution in 1915. A year later, he was appointed Assistant Professor of Zoology at the Government College, Lahore. In 1917 he joined the Department of Fisheries, Bengal, Bihar and Orissa, as Superintendent and the following year, became Acting Director of Fisheries.

In 1920, his services were transferred to the Zoological Survey of India. In 1922 he went to Europe on study leave, where he worked in various natural history museums and marine biological stations. He was deputed to attend the International Ornithological Conference at Copenhagen in 1926 and at Amsterdam, four years later. In 1933 he was placed in administrative charge of the Zoological Survey of India, Calcutta and after eleven years was appointed Fisheries Development Adviser, Government of India.

A Fellow of the California Academy of Sciences, Dr. Prashad published over a hundred papers on Zoology and Palaeontology. He also translated into English a number of historical treatises from Persian. He was, on several occasions, examiner for Zoology for D.Sc. students of the Universities of Punjab, Allahabad, Benaras and Calcutta. He spoke English, German, French, Persian, Hindustani and Bengali fluently."

Dakshini

New Members

The following joined the Society during the year 1967-68

Patrons

1. Mr. N.D. Abbey, c/o Bharat Steel Tubes, Ltd., 14-15/F, Connaught Place, New Delhi.
2. Lt.-Governor Dr. A.N. Jha, I.C.S., 'Raj Niwas', 6, Ludlow Raj Niwas Marg, Delhi-6.

Life Members

1. Kunwar Harish Chandra, 'Kusum Kunj', Pilibhit, U.P.
2. Mrs. N.D. Abbey, c/o Messrs Bharat Steel Tubes, Ltd., 14-15/F, Connaught Place, New Delhi.
3. Mr. D.N. Chenraj, Masgodu Estate, P.O. Somwarpet, Coorg, Mysore.
4. Kumar Surendra Singh, 'Lal Kothi', P.O. Gidhaur, District Monghyr, Bihar. (Transferred from Ordinary membership).
5. Major G.H. Scott, 39, Power Street, Mount Gambler, South Australia. (Transferred from Ordinary membership).
6. Shri Shiv Darshan Singh, 2, Hailey Road, New Delhi.
7. Mr. Philip Wayre, Director, Norfolk Wild Life Park, Great Witchingham, Norwich, England.
8. Dr. Harold J. Coolidge, President, I.U.C.N., 2101, Constitution Avenue, Washington-25, D.C., U.S.A.
9. Dr. Terence Walton, 'Cowie', Loch Awe, By Dallymally, Argyll, Scotland, U.K.
10. Colonel K.G. Kapoor, Military Hospital, Jullundur Cantt.

Ordinary Members

1. Mr. Bengal Dinkar Rao, 2, Woodburn Park, Calcutta-20.
2. Mr. Samar Singh, I.A.S., Collector, West Nimar, Khargone (M.P.)
3. Shri Bhupinder Singh, Thakur of Maliya, 'Palace', Rajkot, Gujarat.
4. Mr. B. Palaniappan, Manager, Venniar Estate, P.O. High Ways, Madurai District.
5. Mr. Abdul Kader H. Noor Mohamed, 'Noor Sons', 257, Swami Vivekanand Road, Bandra, Bombay-50.
6. Mr. G. Nadal, No. 4, Bhagwan Das Road, New Delhi-1.
7. Brigadier C.M. Cariappa, Commander, Headquarters, 70, Infantry Brigade, c/o 56, A.P.O.
8. Mr. Alfred C. Henry, R.D. No. 1, Leesport, Pennsylvania, U.S.A.
9. Mr. Bachoo Narain Singh, 'Singhauli House', P.O. Buniadganj, Gaya, Bihar.
10. Mr. Jal Daroowalla, c/o Middle East Airlines, 2-B, Jamshetji Tata Road, Bombay-1.

11. Mr. K. Ahmedullah, Manager, Cloudland Estate, P.O. High Wavys, Madurai Distt.
12. Yuvaraj Samar Singh of Rampura, Sothuparai Estate, P.O. Talliar, Kerala.

Professional Members

1. Mr. Snorn Soonya Kanita, Royal Forest Department, Thailand, Bangkok, Thailand. (Transferred from Student membership).
2. Shri Gopi Krishna Bora, Chief Conservator of Forests, Rajasthan State, Jaipur.
3. Mr. P.L. Samy, Administrator, Mahe, North Malabar, South India.
4. Mr. M.B. Chitampally, Research Range Forest Officer, c/o Office of the Silviculturist, Maharashtra State, Central Building, Poona-1.
5. Mr. R.K. Bhatnagar, Asstt. Zoologist, Northern Regional Station, Zoological Survey of India, Subash Road, Dehra Dun.
6. Mr. K.A. Kushalapa, Asstt. Conservator of Forests, Forest Resources Survey, c/o Government Saw Mills, P.O. Shimoga, Mysore State.
7. Mr. Masood Hasan, Batch No. 1966-68, Indian Forest College, P.O. New Forest, Dehra Dun.
8. Mr. T.M.A. Jaleel, Forester, Thakkadial, Kottayam-3, Kerala.

Educational Members

1. Mr. R. Dutreau, 51, Lytton Road, Dehra Dun.
2. Mr. Charles Walther, 8-A, Nemi Road, Dehra Dun.
3. Mr. S.P. Grover, Lecturer, D.A.V. College, 3, Curzon Road, Dehra Dun.
4. Dr. C.S. Gupta Head of Zoology Department, College of Science, Gurukula Kangri, Hardwar.
5. Shri Shiv Nam Singh, 375, Purani Ginani, Bikaner, Rajasthan.
6. The Principal, Maharaja Chandra Choor Vidya Mandir, P.O. Gidhaur, Monghyr, Bihar.

Student Members

67, Student Members.

Honorary Members

1. Dr. Nagendra Singh, I.C.S., Secretary to the President of India, No. 3, Willingdon Crescent, President's Estate, New Delhi.

The following joined the Society during 1968-69

Patrons.

1. Mr. David D. Bohanon, 60, Hillsdale, San Matea, California. 94403, U.S.A.
2. His Highness Maharaja Sriraj of Dhrangadhra, 3, Tyagaraja Marg, New Delhi-11.
3. Mr. Frederick Stoeve, M/S Stoeve Glass & Co., Inc., 11, Broadway, New York.

Life Members

1. Mr. C.D.W. Savage, W.A.P.D.A. Colony, Kundian, Distt. Mianwali, W. Pakistan.
2. Col. Sher Jung, B.I. 159, Lajpatnagar, New Delhi-14.
3. Mr. Nigel Sitwell, Animals Magazine, 21-22, Great Castle Street, London, W-1.
4. Colonel K. Guman Singh, N.C.C. Group H.Q., Bhopal, M.P. (Transferred from Ordinary Membership).
5. Mrs. Winefride Bower, Medical Superintendent's House, The Tranquille School, Tranquille, B.C., Canada.
6. Mr. Bart Langenberg, Lethbridge Optical, 303-6 Street South, Lethbridge, Alberta, Canada.
7. Dr. A.S. Venkatachalam, "Sakunthala", 8, Bride Street, Richmond Town, Bangalore-25.
8. H.H. Maharaja Pratap Keshari Deo of Kalahandi, 4, South Avenue Lane, New Delhi.
9. H.H. Maharaja Bhanu Pratap Singh of Narasingharh, 5, Safdarganj Road, New Delhi.
10. Mrs. Dorothy Gentleman, 635, 8th Street, South, Lethbridge, Alberta, Canada.
11. Shri Chundulal Chunilal Desai, 6, Akbar Road, New Delhi.
12. Shri Raj Raj Deo, 29, North Avenue, New Delhi.
13. H.H. Maharaja Kirit Bikram Deb Burman of Tripura, B-4, Wellesley Road, New Delhi.
14. Shri K.P. Singh Dev Mohindra Bahadur of Dhenkanal, 64, South Avenue, New Delhi.
15. Maharaja Devendra Vijai Singh of Ajaigarh, 176, South Avenue, New Delhi.
16. Mr. H. Ajmal Khan, 15, Canning Lane, New Delhi.
17. Mr. D.N. Patodia, M.P., 340, Vinay Marg, Chanakyapuri, New Delhi-11
18. Mr. M.B. Rana, No. 8, North Avenue, New Delhi.
19. Mr. Narendra Kumar Satwe, M.P., 4, Duplex Lane, New Delhi.
20. Mrs. A.K. Chanda, 54-E, Sujan Singh Park, New Delhi-3.
21. Mr. A.C. Thimmiah, 'Green Hills', Virajpet, Coorg, Mysore.
22. Mr. A.C. Jain, Inder Road, Dehra Dun.
23. Mr. F.P. Williamson, Real Estate, P.O. Box 715, Cambridge, Maryland, U.S.A.
24. Brigadier C.M. Cariappa, Comdt., H.Q. 70, Inf. Brigade, c/o 56 A.P.O. (Transferred from Ordinary Membership).
25. Mr. R.L. Nanda, Swiss Hotel, Naini Tal U.P.
26. Maharaj Kumar Gajbhair Singh, 1, Sikandra Road, New Delhi.
27. Mr. V.K. Viswanathan, 'Thapar House', 124, Janpath, New Delhi. (Transferred from Ordinary Membership).

Ordinary Members

1. Shri Sandip Inderjit Thakore, Chandri Villa, Tejpal Road, Gamdevi, Bombay-7.
2. Mr. R.W. Scott, Daisjan Tea Estate, P.O. Talap, Assam.
3. Mr. Kailash H. Rastogi, 5-A, Dilkoosha, Altamount Road, Bombay-26.
4. Mr. Jayamal Khatau, 243, Malabar Hill, Bombay-6.

5. Mr. A.H.K. Maynard, 50, Salisbury Road, Birmingham, U.K.
6. Comdr. K.N. Bahl, G-28, Nizamuddin West, New Delhi-13.
7. Mr. A. J. Rana, 14, Harbour View, Mazagon, Bombay-10.
8. Mr. J.N. Raina, Bank of India, Ltd., Rajpur Road, Dehra Dun.
9. The Chairman, Police Officers' Mess, c/o Det. Imtrat (T), 99 A.P.O.
10. Mr. Virendra V. Sagar, 54, Walkeshwar Road, Bombay-6.
11. Mr. A.R. Kapadia, 103, Dr. Atmaram Merchant Road, Bombay-2.
12. Mr. V.K. Kapoor, 126-L, Model Town, Sonapat, Haryana.
13. Mr. A.S. Jadhav, Dikom Tea Estate, P.O. Dikom, Assam.
14. Mr. E.P. Brigg, Nahortoli Tea Estate, P.O. Dikom, Assam.
15. Mr. Ronald Cooper, Greenwood Tea Estate, P.O. Dibrugarh, Upper Assam.
16. Mr. P.H. Bottomley, Nokhroy Tea Estate, P.O. Tinsukia, Assam.
17. Major-General Kamta Prasad, M.C., 'Dilkush', 3 Raja's Road Dehra Dun.
18. Mr. Kailash S. Maheshwari, Madhav Vilas, 8, Setalvad Lane, Bombay-6.
19. Mr. K.P. Khambatta, 21, Casa Grandi, Little Gibbs Road, Bombay-6.
20. Lt.-Col. G.S. Sumra, 2, Bharuwala, Clement Town, Dehra Dun.
21. Mr. Charles Anderson, Digultarrung Tea Estate, P.O. Doom Dooma, Assam.
22. Mr. P.M. Wilson, Samdang Tea Estate, P.O. Doom Dooma, Assam.
23. Mr. Ajit M. Mehta, Peerbhoy Mansion, Sandhurst Road, Bombay-4.
24. Mrs. Betty Becket Raphael, Mohini Road, Cheshire Home, Dehra Dun.
25. Mr. Samir Lamba, D-1/85, Vinay Marg, Chanakyapuri, New Delhi-11.
26. Thakur Jai Kirat Singh, 16-B, Old Survey Road, Dehra Dun. (Membership from 1964-65).
27. The Divisional Forest Officer, N.B. Afforestation Division, P.O. Bettiah, District Champaran, Bihar.
28. Shri K. Vikram Singh c/o Tigers and Tigers, Shikar Outfitters, Jaipur.
29. Mr. Brij Bans Behari, Executive Engineer, Ken Canal Division, Banda, U.P.
30. Mr. M.J. Cruickshanks, G-75, Nizamuddin West, New Delhi-13.
31. Mr. R.K. Gupta, Manager, Chandavarrai Estate, P.O. Sethuparvathipuram, High Range, Kerala.
32. Mr. C. J. Miller, Headmaster, Doon School, Dehra Dun. (From 1967-68).
33. Shri R.K. Berry, c/o M/S Bombay Jewellers, Rajpur Road, Dehra Dun.
34. Major (Dr.) Hari Singh Maini, 15-A, New Road, Dehra Dun.
35. Mr. T.G.O. Malley, Dekhari Tea Estate, P.O. Rajmai, Assam.
36. The Mess Secretary, H.Q. 23 Mtn. Div, 'A' Mess c/o 99 A.P.O.
37. Mr. C. Brahmi, Asstt. Manager, Moran Tea Estate, P.O. Moran, Assam.
38. Mr. H.K. Kelly, 116-N, Canterbusy Road, Charlotte, North Carolina, U.S.A.
39. Miss G.M. Hamilton, 'Hillstow', Ledbury, Herefordshire, England.

40. Mrs. M.A. Suckling, The Rambler, Haydon Bridge, Hexham, Northumberland, U.K.
41. Mr. D.A. Mason, Upper Orwell Street, Ipswich, Suffolk, England.
42. Mrs. M. Neely, 69, Heidelberg/Schlierbach, In der Aue 16-a, Germany.
43. Mr. L.R. Dawson, Bishopthorpe Farm, Tetney, Nr. Grimsby, Lancashire, U.K.
44. Miss L. Blair, Portbane, by Aberfeloy, Perthshire, Scotland, U.K.
45. Mr. E. Callegari, Via Berbiani 8, Havenna, Italy.
46. Miss V. Tate, North Heath Farm, Wimblesbury Road, Horsham, Surrey, England.
47. Mr. M.J. Falk, 187, The Terrace, Ashhurst, North Ireland, New Zealand.
48. Miss N. Hodgins, 126, Main Street, Sandown, Johannesburg, South Africa.
49. Miss L.A. McDonald, 134, Lime Walk, Headington, Oxfordshire, England.

Professional Members

1. Mr. A.P. Kothawala, Golfston, Kotagiri, Nilgiris, S. India.
2. Shri S. Prashad, I.F.S., Divisional Forest Officer, Yamuna North Division, Mussoorie, U.P.
3. Mr. S.M. Osman, 11-D/10, Circular Road, Dehra Dun.
4. Mr. J.J. Dutta, Conservator of Forests, Development Circle, Bhopal (M.P.).
5. Shri Ashok Singh, S.D.O. Forests, North Mirzapur Forest Division, Mirzapur, U.P.
6. Shri O.P. Srivastava, A.I.F.C., S.D.O. Forests, Barawani, West Nimar, M.P.
7. Mr. Madan Narendra Dakshini, Giriraj Kutir, Mall Road, Dehra Dun.

Educational Members

1. Mr. Justman Anthony, Assistant Master, Lawrence School, Lovedale, Nilgiris.
2. Mr. K.C. Joshi, Welhams Preparatory School, Dehra Dun.
3. Mr. S.K. Kulashresta, 8, Rispana Colony, Dehra Dun.

Family Members

1. Dr. K.J. Dunlop, Meddajan, P.O. Chabua, Assam.
2. Mrs. Peter Howell, Alberta, Canada. (2 members).

Student Members

38 Student Members.

The I.U.C.N. Morges (Switzerland)

What is IUCN ?

The International Union for Conservation of Nature and Natural Resources (IUCN) is an independent international body whose membership comprises states, irrespective of their political and social systems, government departments and private institutions as well as international organisations.

IUCN represents those who are concerned at man's modification of the natural environment through the rapid spread of urban and industrial development and the excessive exploitation of the earth's natural resources, upon which rest the very foundations of his survival.

IUCN's objective

IUCN's main purpose is to promote or support action that will ensure the perpetuation of wild nature and natural resources in as many parts of the world as possible, not only for their intrinsic cultural or scientific values but also for the long-term economic and social welfare of mankind.

To further the objective the Union promotes:

AWARENESS through education, so that as many people as possible may understand the value and importance of renewable natural resources and appreciate the need to use them wisely. This includes the dissemination of information through the press, radio, films, and television and through the Union's own publications.

RESEARCH to discover the best measures for conservation and to advance the study of ecology upon which all practical conservation depends.

ASSISTANCE in providing technical data for the conduct of practical conservation programmes.

ACTION on a national and international scale, by enlisting the co-operation of governments and international agencies in support of conservation programmes as well as in strengthening legislation and improving its enforcement.

IUCN Meetings

The Union convenes a General Assembly every third year in order to act upon issues of current importance, and to serve as a forum for discussion of conservation problems. Between 1948 and 1960, biennial general assemblies were held in Fontainebleau (France), Brussels (Belgium), Caracas (Venezuela), Copenhagen (Denmark), Edinburgh (Scotland), Athens (Greece) and Warsaw (Poland).

The next one in 1969 will be held at New Delhi in November

Wild Life Preservation Society of India

1. The aims and objects of the Society are as follows:

- (a) To promote interest in and impart knowledge regarding the preservation and conservation of all forms of wild life, particularly among the youth of the country.
- (b) To co-operate with the Govts. of India and States and with other Societies and Institutions having similar aims and objects in working for the interests of wild life.
- (c) To assist in enforcing and actively supporting the Forest Acts, Wild Birds and Animals Protection Acts and Rules etc. of States and the Indian Arms Act and Rules in so far as they pertain to wild life and to bring to the notice of the authorities any infringement of the same and to assist in the detection and prosecution of offenders in respect of such laws.
- (d) To advise and help the Govt. and wild life administrators in the formation, maintenance and protection of Sanctuaries and National Parks, the preservation of wild life in general and rare species of India in particular and in the introduction of exotic species into the country, the rehabilitation of rare species etc. and in the revision on rational lines of the shooting and fishing rules, so as to conserve and increase wild life stocks.
- (e) To raise funds for the carrying out of the above aims and objects and to find and maintain museums, reading rooms and libraries of natural history in order to disseminate knowledge regarding wild life.
- (f) To promote sportsmanship in shikar and to recognise well regulated shooting and fishing, as a means of preserving wild life and fish so that through wise use the surplus may provide a recreational asset to the nation.
- (g) To carry out publicity and propaganda for the preservation of wild life in India by means of monographs, journals, films, film strips and other feasible methods.
- (h) To assist members of the Society in obtaining shooting and fishing facilities and facilities for viewing and photographing wild life in India.
- (i) To conduct research into the problem of Wild Life management in India, and in pursuance of this, to initiate, encourage and, where possible, assist in projects for the study of threatened species and related subjects and to provide reference and research facilities for such work.
- (j) To carry on such other activities which will serve the above subjects.

What membership of Wild Life Preservation Society of India will entitled you to ?

1. You will become an active member of the growing number of Wild Life enthusiasts, who enjoy working for and spreading the knowledge of how to conserve India's heritage of Wild Life for posterity.
2. You will be entitled to the full use of the Library of the Wild Life Preservation Society and of its reading room.
3. You will receive a membership certificate.
4. You will receive a personal Identification and Membership card.
5. You will be entitled to buy all publications of the Society at a concession rate.
6. You will be entitled to buy at concession rates the Society's Greeting Cards, Calendars, Tie, Lapel badge and the Balance of Nature Game (specially Published in colour for its educative and recreational value).
7. You will be supplied "Cheetal", the half yearly journal of the Society free.

CORBETT NATIONAL PARK

Home of Wild Life

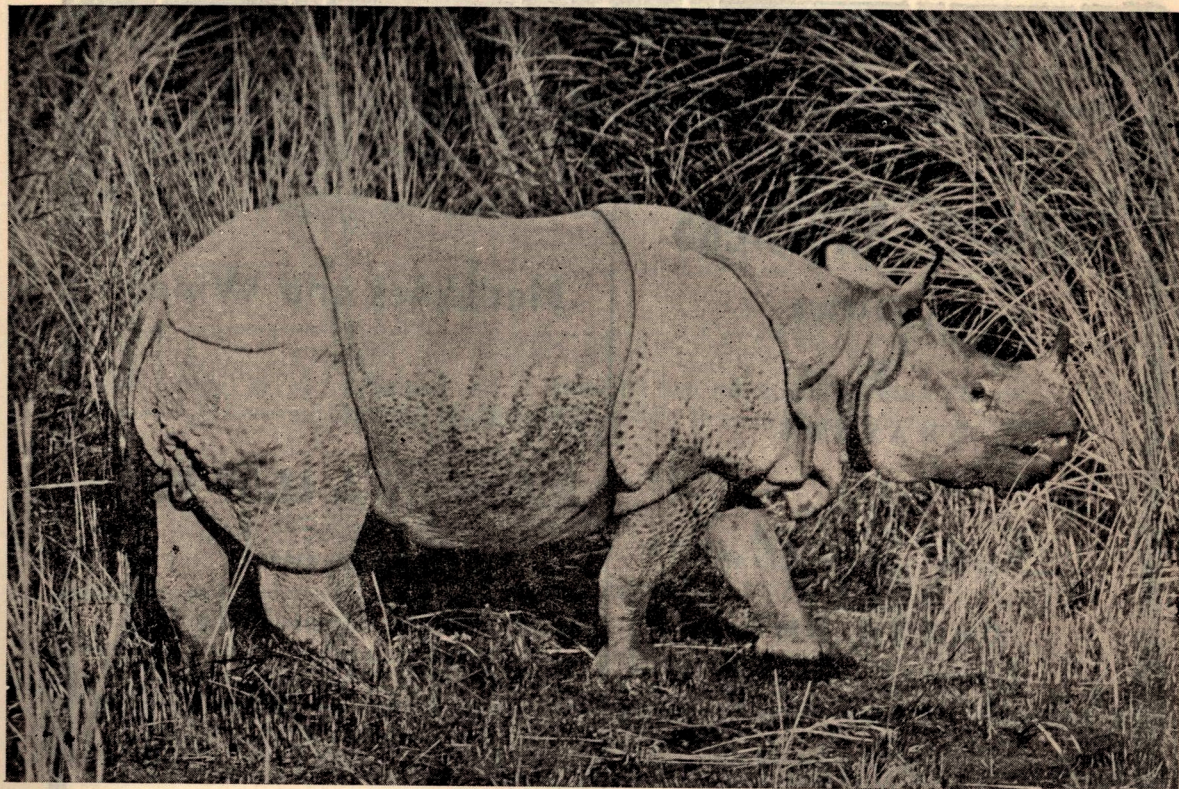
Holiday resort

All amenities



CHIEF WILD LIFE WARDEN, U.P.

LUCKNOW.



Welcome to ;

JALDAPARA WILD LIFE SANCTUARY

Best time to visit — NOVEMBER TO APRIL

Situation — Alipurduar, Jalpaiguri District, West Bengal.

Scenic Beauty — River Torsa with nine Tributaries flows through the riverine forest of the sanctuary.

Wild Life Attraction — See the world famous Indian one-horned Rhinoceros in natural habitat and also Elephants, Royal Bengal Tigers, Panthers, Bison, Sambhar, Cheetal and India's National Bird—the Peacock and a variety of Bird Life.

Area — Thirty-six sq. miles near Bhutan border.

Railway Station :— Hashimara—only two km. from Tourist Bungalow, Barodabri.

Air Strip :— Hashimara, Bi-weekly Air Service from Calcutta. Motor from Cooch Behar or Bagdogra on Air Service from Calcutta.

Forest Department Jeep and Elephants available to tourists on hire.

Accommodation :— Modern Tourist Bungalow with catering arrangements at reasonable charges of Rs. 15/- per day per person inclusive of Lodging, Bed Tea, Breakfast, Lunch, Afternoon Tea and Dinner.

Information and Reservation from :— **THE DIVISIONAL FOREST OFFICER,**
Cooch Behar Division, P.O. Cooch Behar (W. Bengal),

Telephone :— Cooch Behar 27.

Phone : 3649

Estd. 1855

KISHAN BROTHERS

TAILORS

&

DRAPERS

Saree Specialists

DEHRA DUN

Phone : 3266

For your requirements

in

Medicines and Wines

Please Visit :

KISHAN LAL & CO.

DEHRA DUN

The oldest establishment of the town

STOP, SHOP & SAVE

AT

Shamsher Singh & Sons,

DEHRA DUN

Bhai Dhian Singh & Co.,

MUSSOORIE

Leading Wine and General Merchants

Since 1890

Majestic Cafe

ESTD. 1930

Ever known specially by the
Forces

FOR

TANDOORI GRILL, PUNJABI DISHES,
OUTSIDE CATERING UNDERTAKEN

Rajpur Road, DEHRA DUN.

APPLICATION FORM

The Wild Life Preservation Society of India

I, of

hereby apply to be admitted as a Patron/Life/Ordinary/Profession/Educational/Family/
Affiliated/Institutional/Student Member of the Wild Preservation Society of India.

My interests are.....

Name.....

Designation.....

Address.....

Date of Birth.....

MEMBERSHIP

- | | |
|--|--|
| 1. Patron : | Rs. 500.00 and over. |
| 2. Life : | Rs. 150.00 |
| 3. Ordinary : | Rs. 20.00 Entrance Fee + Rs. 12.00 subscription per annum. |
| 4. Professional:
(Foresters, Agricultural Workers,
Soil Conservationists, Wild Life
Managers) | } 50% of Ordinary Members. |
| 5. Educational .
(Teachers and Trainers) | |
| 6. Student : | 50% of Ordinary Members. No Entrance Fee. |
| 7. Family :
(Applies to 2, 3 and 4 above) | Twice Ordinary Members. No Entrance Fee. |
| 8. Affiliated :
(Other similar bodies) | } Five times the Ordinary Members, i.e., Rs. 60.00
with 5 votes. No Entrance Fee. |
| 9. Institutional :
(Messses, Units, Schools, Colleges,
etc.) | |

The Wild Life Preservation Society of India

To Members,

There are many people who have the interests of Wild Life Conservation at heart but in these difficult days are not able to do as much for the cause during their lives as they otherwise might.

It is, therefore, considered that a Form of Bequest might appeal. Such a form is, therefore, now inserted in our Journal and the attention of members is respectfully invited.

Any sums received will be wisely expended in measures calculated to conserve wild life.

FORM OF BEQUEST

I give and bequeath the sum of unto the Wild Life Preservation Society of India, Dehra Dun and I declare that the receipt of the Honorary Secretary and Treasurer of the said Society shall be sufficient discharge for the said sum.

Signed.....

Address.....

Witness:

Name.....

Address.....

Occupation.....

Wild Life Preservation Society of India

President:—His Highness Maharaja Pratap Singh Malvendra of Nabha

Executive Vice-President:—Shri S.S. Negi (Retd. Conservator of Forests)

Hony. Secretary & Treasurer:—Dr. R.N. Misra

Asstt. Hony. Secretaries:—1. Dr. S.K. Sangal

2. The Secretary, Wild Life Club, F.R.I. & Colleges

Assam Branch (Shillong)

President:—H.H. the Maharaja of Chalkhari

Secretary:—Mr. J. Swer

Bihar Branch (Monghyr)

President:—Kumar Surendra Singh

Secretary:—Prof. A.A. Khan

Editorial Board

1. Shri Hari Dang (*Editor*)

2. Shri S.S. Negi

3. Dr. R.N. Misra

**Buy from the Honorary Secretary, Wild Life Preservation Society of India
7, Astley Hall, Dehra Dun.**

- | | | |
|---|--------|---------------------|
| (1) Greeting Card—in colour with pictures of Peacock, White Tiger, and Panther. | | |
| Card suitable for all occasions | ... | Price Re. 0.75 each |
| (2) Society's Tie (with Cheetal head in gold on green silk) | ... | „ Rs. 12.00 each |
| (3) Society's Blazer Brass Buttons with Cheetal head (small and large) | | „ Rs. 12.00 doz. |
| (4) Society's Writing Pads & Covers (two pads with 100 covers) | | „ Rs. 11.00 each |
| (5) Balance of Nature Game (for members) | | „ Rs. 6.00 each |
| (6) Society's Cheetal Head Lapel Badge | | „ Rs. 2.00 each |
| (7) Tourists' guide to Sanctuaries & National Parks in India | ... | „ Re. 0.25 each |

**JOIN THE SOCIETY AND HELP PRESERVE INDIA'S
VANISHING WILD LIFE**

Postal Address:

7, Astley Hall, Dehra Dun.

CONTENTS

	Page
1. Ourselves	1
2. Editorial Notes	2
3. Himalayan Notes—Hari Dang	10
4. The Ecology of Mysore Wild Mammals—M. Khader Hussain, B.Sc.	11
5. A Legend from Lahul—Hari Dang	20
6. Fishing Notes from the Doon—S.P. Grover	23
7. The Delhi Zoo	25
8. A Riddle from The Jungle—E.R.C. Davidar	26
9. Jungle Plague—E.R.C. Davidar	28
10. Preservation of the White Winged Wood Duck in Assam—M. J.S. Mackenzie...	30
11. It Happened in India and How They do It Elsewhere	34
12. Letters to the Editor	35
13. कैमरे द्वारा जंगली जानवरों की शूटिंग—रामेश बेदी	40
14. Students' Corner	44
15. Reviews	46
16. खूंखार बघैरों का द्वन्द दर्शन—वीरेन्द्र सहाय सक्सेना, आई०एफ०एस०	49
17. Library	51
18. Obituary—Dr. Bainsi Prasad	56
19. New Members	57
